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# ANNUAL REPORT

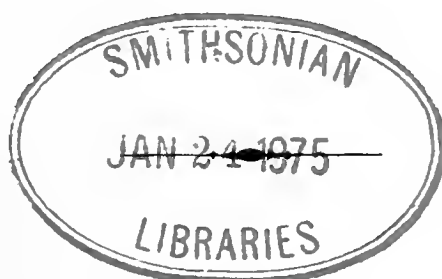
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OF THE

# COMMISSIONER OF PATENTS

FOR

THE YEAR 1880.



WASHINGTON:  
GOVERNMENT PRINTING OFFICE.  
1881.

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# ANNUAL REPORT

OF THE

## COMMISSIONER OF PATENTS

TO CONGRESS,

FOR THE YEAR ENDING DECEMBER 31, 1880.

DEPARTMENT OF THE INTERIOR,  
UNITED STATES PATENT OFFICE,  
Washington, D. C., January 31, 1881.

SIR: In compliance with section 494 of the Revised Statutes, I have the honor to submit the following report of the operations of this Office during the year terminating the 31st of December, 1880.

### RECEIPTS.

*Detailed statement of all moneys received for patents, for copies of records or drawings, or from any source whatever.*

<b>Applications:</b>	
Cash received .....	\$591,696 00
Cash refunded .....	1,555 00
Net cash .....	590,141 00
Certificates of deposit .....	60,274 00
Total cash and certificates .....	650,415 00
<b>Copies:</b>	
Cash received .....	58,661 25
Cash refunded .....	1,888 92
Net cash .....	56,772 33
Certificates of deposit .....	1,282 62
Total cash and certificates .....	58,054 95
<b>Recording assignments:</b>	
Cash received .....	22,832 00
Cash refunded .....	813 90
Net cash .....	22,018 10
Certificates of deposit .....	275 75
Total cash and certificates .....	22,293 85
<b>For subscription to Official Gazette:</b>	
Cash received .....	8,674 67
Cash refunded .....	370 65
Net cash .....	8,304 02
Certificates of deposit .....	139 50
Total cash and certificates .....	8,443 52
<b>Registration of labels:</b>	
Cash received .....	2,152 00
Cash refunded .....	636 00
Net cash .....	1,516 00
Certificates of deposit .....	102 00
Total cash and certificates .....	1,618 00
<b>Registration of trade-marks:</b>	
Cash received .....	9,045 00
Cash refunded .....	185 00
Net cash .....	8,860 00
<b>Aggregates.</b>	
Cash received .....	\$693,060 92
Cash refunded .....	5,449 47
Net cash .....	687,611 45
Certificates of deposit .....	62,073 87
Total cash and certificates .....	749,685 32

### EXPENDITURES.

*Amount expended under the several appropriations from January 1, 1880, to January 1, 1881.*

Salaries .....	\$423,474 57
Contingent expenses .....	24,418 70
Official Gazette .....	25,581 10
Photolithographing .....	34,525 48
Copies of drawings .....	24,081 63
Tracings of drawings .....	2,340 00
Scientific library .....	4,443 69
Total .....	538,865 17

### Statement of contingent expenses in detail.

Stationary portfolios for drawings .....	\$114 00
Furniture and labor connected therewith .....	4,885 30
Repairing .....	2,427 35
Papering .....	1 00
Painting .....	148 64
Carpets .....	1,828 12
Ice .....	818 37
Moneys refunded .....	40 00
Printing engraved patent-heads .....	117 40
Temporary clerks .....	6,280 00
Extra labor on indexes .....	672 60
Other contingencies, viz:	
Subscription to journals, washing towels, keeping horse, rent of telephone, lumber, copies of court decisions, paste, file-wrappers, engraving, &c. ....	7,085 92
Total .....	24,418 70

### RECEIPTS OVER EXPENDITURES.

Total receipts .....	\$749,685 32
Total expenditures .....	538,865 17
Receipts over expenditures .....	210,820 15

### Statement of balance in the Treasury of the United States on account of the Patent fund.

Amount to the credit of the fund January 1, 1880 .....	\$1,420,806 56
Amount of receipts during the year 1880 .....	749,685 32
Total .....	2,170,491 88
Deduct expenditures for year 1880 .....	538,865 17
Balance January 1, 1881 .....	1,631,626 71

### SUMMARY OF THE BUSINESS OF THE OFFICE.

Number of applications for patents for inventions .....	21,761
Number of applications for patents for designs .....	634
Number of applications for reissues of patents .....	617
Total number of applications relating to patents .....	23,012
Number of applications for extensions .....	0
Number of caveats filed .....	2,490
Number of applications for registration of trade-marks .....	390
Number of applications for registration of labels .....	375
Number of disclaimers filed .....	18
Number of appeals on the merits .....	773
Total number of applications requiring investigation and action .....	27,058

Number of patents issued, including designs.....	13,441
Number of patents reissued.....	506
Number of trade-marks registered.....	349
Number of labels registered.....	184

Total number of patents granted and certificates issued. 14,480

Number of patents expired during the year.....	3,781
Number of patents withheld for non-payment of final fee..	1,365

#### PATENTS ISSUED.

*Patents issued to citizens of the United States, with the ratio of population to each patent granted.*

States and Territories.	Patents and Designs.	One to every—
Alabama.....	62	20,366
Arizona Territory.....	2	20,220
Arkansas.....	44	18,240
California.....	349	2,491
Colorado.....	24	8,110
Connecticut.....	610	1,020
Dakota Territory.....	8	16,897
Delaware.....	23	7,376
District of Columbia.....	116	1,531
Florida.....	15	17,823
Georgia.....	77	19,987
Idaho Territory.....	2	16,305
Illinois.....	943	2,263
Indiana.....	359	5,510
Indian Territory.....	1	.....
Iowa.....	285	5,700
Kansas.....	96	10,374
Kentucky.....	170	9,639
Louisiana.....	66	14,243
Maine.....	101	6,425
Maryland.....	229	4,081
Massachusetts.....	1,339	1,333
Michigan.....	450	3,636
Minnesota.....	114	6,849
Mississippi.....	39	29,015
Missouri.....	337	6,435
Montana Territory.....	3	13,052
Nebraska.....	31	14,594
Nevada.....	24	2,590
New Hampshire.....	111	3,125
New Jersey.....	518	2,183
New Mexico Territory.....	2	59,215
New York.....	2,802	1,814
North Carolina.....	36	38,888
Ohio.....	917	3,486
Oregon.....	22	7,943
Pennsylvania.....	1,324	3,234
Rhode Island.....	205	1,348
South Carolina.....	39	25,528
Tennessee.....	82	18,810
Texas.....	147	10,833
Utah Territory.....	10	14,390
Vermont.....	76	4,372
Virginia.....	99	15,280
Washington Territory.....	6	12,520
West Virginia.....	52	11,893
Wisconsin.....	276	4,766
Wyoming Territory.....	3	6,929
United States Army.....	6	.....
United States Navy.....	3	.....
Total.....	12,655	.....

*Patents issued to citizens of foreign countries.*

Of patents issued to foreigners there were granted to citizens of—

Great Britain.....	275
Germany.....	174
Canada.....	160
France.....	91
Switzerland.....	22
Austria.....	15
Belgium.....	10
Sweden.....	8
Italy.....	7
Russia.....	3
Australia.....	5
Cuba.....	4
Denmark.....	2
New Zealand.....	2
Brazil.....	1
Chili.....	1
Spain.....	1
United States of Colombia.....	1
Ecuador.....	1
Bermuda.....	1
Barbadoes.....	1
Isle of Syra.....	1
Total.....	786

*Comparative statement of the business of the Office from 1837 to 1880, inclusive.*

Year.	Applica-tions.	Caveats filed.	Patents issued.	Cash re-ceived.	Cash ex-pended.	Surplus.
1837.....	.....	.....	435	\$29,289 08	\$33,506 98	.....
1838.....	.....	.....	520	42,123 54	37,402 10	\$4,721 44
1839.....	.....	.....	425	37,260 00	34,543 51	2,716 49
1840.....	735	228	473	38,056 51	39,020 67	.....
1841.....	847	312	495	40,413 01	52,666 87	.....
1842.....	761	391	517	36,505 68	31,241 48	5,264 20
1843.....	819	315	531	35,315 81	30,776 96	4,538 85
1844.....	1,045	380	502	42,509 26	36,244 73	6,264 53
1845.....	1,246	452	502	51,076 14	39,395 65	11,680 49
1846.....	1,272	448	619	50,264 16	46,158 71	4,105 45
1847.....	1,531	553	572	63,111 19	41,878 35	21,232 84
1848.....	1,628	607	660	67,576 69	58,905 84	8,670 85
1849.....	1,955	595	1,070	80,752 98	77,716 44	3,036 54
1850.....	2,193	602	995	86,927 05	80,100 95	6,816 10
1851.....	2,258	760	869	95,738 61	86,916 93	8,821 68
1852.....	2,639	996	1,020	112,656 34	95,916 91	16,739 43
1853.....	2,673	901	958	121,527 45	132,869 83	.....
1854.....	3,328	868	1,902	163,789 84	167,146 32	.....
1855.....	4,435	906	2,024	216,459 35	179,540 33	36,919 02
1856.....	4,960	1,024	2,502	192,588 02	199,931 02	.....
1857.....	4,771	1,010	2,910	196,132 01	211,582 09	.....
1858.....	5,364	934	3,710	203,716 16	193,193 74	10,522 42
1859.....	6,225	1,097	4,538	245,942 15	210,278 41	35,663 74
1860.....	7,653	1,084	4,819	256,352 59	252,820 80	3,531 79
1861.....	4,643	700	3,340	137,354 44	221,491 91	.....
1862.....	5,038	824	3,521	215,754 99	182,810 39	32,944 60
1863.....	6,014	787	4,170	195,593 29	189,414 14	6,179 15
1864.....	6,932	1,063	5,020	240,919 98	229,868 00	11,051 98
1865.....	10,664	1,937	6,616	348,791 84	274,199 34	74,592 50
1866.....	15,269	2,723	9,450	495,665 38	361,724 28	133,941 10
1867.....	21,276	3,597	13,015	646,581 92	639,263 32	7,318 60
1868.....	20,420	3,705	13,378	681,565 86	628,679 77	52,886 09
1869.....	19,271	3,624	13,986	693,145 81	496,430 78	206,715 03
1870.....	19,171	3,273	13,321	669,456 76	557,149 19	112,307 57
1871.....	19,472	3,366	13,033	678,716 46	560,595 08	118,121 38
1872.....	18,246	3,090	13,590	699,726 39	665,591 36	34,135 03
1873.....	20,414	3,248	12,864	703,191 77	691,178 98	12,012 79
1874.....	21,602	3,181	13,599	738,278 17	679,288 41	58,989 76
1875.....	21,638	3,094	16,288	743,453 36	721,657 71	21,795 65
1876.....	21,425	2,697	17,026	757,987 65	652,542 60	105,445 05
1877.....	20,308	2,809	13,619	732,342 85	613,152 62	119,190 23
1878.....	20,260	2,755	12,935	725,375 55	593,082 89	132,292 66
1879.....	20,059	2,620	12,725	703,931 47	529,638 97	174,292 50
1880.....	23,012	2,490	13,947	749,685 32	538,865 17	210,820 15

#### AN INCREASE OF FORCE NECESSARY.

The number of patents, including reissues and designs, granted during the past year has only been exceeded in the years 1869, 1875, and 1876, and the receipts of the Office have never been exceeded except in the year 1876. The excess of receipts over expenditures, \$210,820.15, is greater than that of any former year. This result is due to the large receipts of the Office and the comparatively small expenditure during the year, such expenditure being less than that for any year since 1866, except the years 1869 and 1879. In the year 1875, when there was the greatest number of applications ever presented to the Office in any one year except the last, the expenditures were \$721,657.71. The comparatively small expenditure of the past year, necessitated by the appropriations made by Congress, has greatly embarrassed me in the proper and prompt dispatch of business. The force employed, as well as the salaries paid to many of the employes of this bureau, is entirely inadequate to the amount and character of work required. Some of the examining divisions are several months behind with their work, which accounts in some measure for the proportionately less number of patents granted as compared with former years, many of the applications filed during the year remaining undetermined at its close. This is a serious difficulty, because inventors as a class are impatient of delay. The importunity and pressure brought to bear for speedy action often results in imperfect examination and ill-considered decisions, sometimes resulting in the granting

of patents which cannot be maintained in the courts. Our laws contemplate that an applicant's right to a patent for the device or matter claimed shall be determined before the same is issued. Such being the theory of our system, the grant of an illegal patent serves to mislead and deceive the public, and tends to throw distrust and discredit upon patented property, and injures the commercial value of meritorious inventions.

The practice of the Office and its investigations should be such as to command the entire confidence of the public, so that business operations and the investment of capital can with safety be founded upon them. To accomplish this a large number of examiners having a high order of ability is requisite.

It was said by Mr. Commissioner Foote, in his report for the year 1868, that—

Questions as to the patentability of inventions become more difficult with the increase in the number of previous devices. An examiner must familiarize himself with all the inventions that have been made in his class, not only in this country but in Europe. Their great number and complexity have rendered the study of them a profession to be acquired by years of labor. An examiner's decisions involve nice questions of law, of science, and of mechanics. The more recondite principles upon which depend the practical success of processes and machinery must be familiar to him. Large amounts of property often depend directly or indirectly upon his action. The ability and acquirements necessary to the proper discharge of his duties must be of a high order—scarcely less than those we expect in a judge of the higher courts of law.

In order to thoroughly examine and decide the intricate questions which arise, the ablest and most experienced examiners must have sufficient time for mature consideration on each claim. The number of claims presented in each application will average not less than four. Applications, upon being filed, are distributed to the Principal Examiners, according to the invention, for examination. It is the duty of the Commissioner of Patents to furnish an applicant with any and all information which in his judgment shows that the device or matter claimed is anticipated by former patents or publications, after which the applicant may either amend his application or demand a reconsideration of the decision. As a rule applications are amended; and as they may be amended as often as new reasons or references are given by the examiner, which by reason of the change in the claims often becomes necessary, it is not extravagant to say that the average actions, each of which amounts to a decision upon evidence, which the Examiner himself must find are not less than four to each application, so that upon the twenty-three thousand applications filed during the past year not less than ninety-two thousand decisions were made. With the force now provided by law the twenty-four Principal Examiners, including the Examiners of Trade-Marks and of Designs, are required to superintend and are held responsible for this large number of decisions, making for each examiner about four thousand decisions during the year.

Some conception of the magnitude of the labors of the examining corps of this Office, and of the necessity for an increase thereof, may be gained from the foregoing. The examiners have been urged by the public, by myself, and by the exigencies of the service to extraordinary efforts, and they have responded with remarkable unanimity, to prevent the business of the Office from becoming seriously delayed. Under this pressure patents may have been granted upon hasty examination which ought to have been refused. This difficulty must continue to exist unless Congress provides for an increase in the number of examiners and

assistants, or confers upon the Commissioner authority to add to such force from time to time as the exigencies of the business require. As the inventors of the country pay for all the expenses of these examinations, it is due to them that their business should be transacted properly and promptly. I therefore recommend an increase over the present force of one principal examiner, three first, three second, and three third assistant examiners. This increase would add one entire division to the examining corps, and also provide assistants to the Examiners of Designs and of Trade-Marks, who now, in order to equalize the work, are charged with the examination of a large number of subclasses of applications in addition to the special class for which their offices were created. This would provide twenty-five examining divisions, (aside from the Examiner of Interferences,) and would, in my judgment, be sufficient, for a time at least, to insure prompt action upon applications as they are filed in the Office.

The appropriations for the year ending June 30, 1881, provide salaries for three hundred and sixty-nine persons. This includes the Commissioners, the examiners and their assistants, the clerks, copyists, messengers, and laborers.

By reason of the demands of the public service I have been compelled to employ a much larger number, and am now employing four hundred and eleven persons, exclusive of the carpenters, who are paid out of the contingent fund. In order to do this and keep within the appropriations, a large number of persons are employed as laborers at salaries not much above half-pay—that is to say, at about one-half of the salary that is contemplated by Congress for a given character of service. The appropriation for the next fiscal year should be so increased as to secure the retention of those now employed at least, and at such salaries as have heretofore been paid for like services.

#### ROOM.

A serious embarrassment which I have met, and which has been frequently referred to by my predecessors in office, is the want of sufficient room for the convenient and proper transaction of the business of the Office. This want of room largely diminishes the effectiveness of the force. Mr. Commissioner Paine, in his report for the year ending 1879, referring to this subject, said:

The rooms occupied by the examiners are utterly inadequate to the requirements of the public service. Many of them are too unhealthy to be fit for any use except the storage of material. Each of the examining divisions needs two well-lighted and well-ventilated rooms; but in most cases a single small room is the only accommodation afforded for the entire examining divisions, including the clerks, with all the desks, models, drawings, and books required for the performance of their work. It necessarily results that each examiner is disturbed by the consultations of the other examiners with inventors and attorneys.

The crowded condition of the rooms retards the transaction of business, and at the same time occasions much sickness as well as discomfort among the examiners and clerks. This entails serious loss upon the Government, and involves gross injustice to these officers. The Government has already levied upon the inventors contributions nearly equal to the cost of the Patent Office building. In the original statute providing for its erection, which was enacted July 4, 1836, it was ordered that the cost should be paid out of the "patent fund in the Treasury not otherwise appropriated." This would seem to have dedicated at the outset all the net revenues realized by the Government from the Patent Office to the construction of the building.

In 1849 and 1850 specific appropriations of the patent fund were made for the construction of this edifice, amounting to two hundred thousand dollars. In addition, the Government has taken from inventors enough to make the aggregate net revenues from the Patent Office almost a million and a half of dollars; and yet this Bureau is now restricted to a small part (which is also the worst part) of the building, and the best portions are being occupied by the Land Office, the Indian Bureau, the Assistant Attor-



ney-General, and the offices of the Secretary of the Interior. The Patent Office needs, and ought to have, exclusive possession of the entire building, excepting those portions only which are required for the use of the Secretary. Seasonable legislation looking to that end is imperatively required.

#### DIGESTS.

Attention has been called by several of my predecessors to the necessity of having a digest made, for the use of the Office and of the public, of the inventions patented in this and foreign countries, as well as those disclosed in publications, technical works, and in scientific and other libraries. At the risk of repetition, I desire also to call the attention of Congress to the importance of such a work, in the hope that the necessity so long felt and so often referred to may, at no distant day, be relieved, and the wants of the Office and the public supplied. Nearly 240,000 patents have already been issued by this office. If the examinations of the Office upon applications filed were limited to American patents only, the necessity for a digest of such patents would, to any person at all acquainted with the business of this Office, be apparent; but when to this number of patents are added those issued in foreign countries, as well as the inventions described in scientific and other works, the importance of such a digest, in order that an examiner may know what the state of the particular art is, cannot be overestimated. As well might it be expected that a lawyer could promptly tell what the law is upon a given subject from the isolated decisions found in the reports of the decisions of the courts of this and other countries, without a digest of such decisions, as that an examiner, although an expert in the particular class, can determine from the great number of inventions already patented, as well as those described in books and publications, whether a particular device or composition of matter is patentable, without some book in which reference is made to all the patents which have been issued in that particular class, as well as the inventions described in books and publications.

The preparation of such a work would cost, it is true, a large sum of money and consume considerable time; but I think the expense to the Government would soon be reimbursed by its sale. If not in that way directly, certainly it would by its sale and the increased facility which it would afford to the examining corps of the Office, lessening their labors, and hence the necessity for so large a number of persons being employed on that kind of work. The advantage to the public, and especially to inventors and manufacturers, would be incalculable. Inventors often spend months, and even years, in producing a device to do a certain thing, only to find at the end of the time thus spent that their inventions have been fully anticipated by other devices, if not identical with the one presented, in all respects similar to it.

Capital, always cautious, seeks investment in property the chief value of which consists in the fact that its owner has the exclusive right to produce or use it, which right is guaranteed by a patent of the United States, more cautiously than in any other kind of property, because of the uncertainty felt in such guaranty of the Government until the validity of such patent is tested by the severe ordeal of a trial in the courts. This feeling of uncertainty, this want of confidence, and hesitation on the part of capitalists and manufacturers may be overcome, in a large degree at least, by

having the inventions in each and every class so brought together that at least those skilled in a particular art can determine whether a particular device or composition of matter is anticipated in a former patent or publication.

Had the preparation of such a work been commenced when it was most urgently recommended by Mr. Commissioner Ewbank more than thirty years ago, and, after its publication, annually kept up, many useless and worthless patents would not have been granted, and its cost to the Government, in my opinion, would have been many times saved.

For the foregoing reasons, and for reasons which have been given by my predecessors in their reports on this subject, I earnestly recommend that action be taken by Congress looking to an early commencement of the preparation of this work. At some time, if our patent system is continued, such a work will become so necessary that its preparation can no longer be delayed. Delay in its preparation will only add to its cost when it is commenced, because the material to be examined and classified is constantly increasing. In the meantime the Office must suffer the inconvenience of not having it for daily use.

#### NECESSARY LEGISLATION.

Under existing law there is no provision for obtaining evidence as to whether or not there has been a public use or sale of an invention claimed for more than two years prior to the filing of the application. Public use or sale for more than two years prior to that time is made by the statute a bar to the grant of a patent, and in case the same is granted proof of such use or sale is sufficient to defeat it; but no way of ascertaining the facts is provided by law. I therefore recommend that the Commissioner of Patents be authorized by law to establish regulations to obtain evidence as to the fact of public use or sale in all cases where such sale or use is alleged, and also to compel the attendance of witnesses, the same as in contested cases, as provided for in section 4906 of the Revised Statutes.

#### ASSISTANT COMMISSIONER.

While an Assistant Commissioner is provided for this Bureau, the law nowhere prescribes his duties when the Commissioner is present and in charge. It has been usual for the Commissioner to assign to the Assistant Commissioner various duties to be performed, including the hearing of cases brought on appeal to the Commissioner in person, where no objection is made by the party or parties interested. Serious objection, however, has been raised to this practice, and a case is now pending in the Supreme Court of this District to determine the validity of a decision made by the Assistant Commissioner while the Commissioner was present. The case in which this question arose occurred prior to my assuming charge of the Bureau; but, owing to the fact that the law does not prescribe the duties of that officer, and also that objection can be made at any stage of the proceedings if decided by him, thereby complicating the case, I have thus far sought to avoid any such complication, so far as decision of cases is concerned, by signing each and every decision prepared by the Assistant Commissioner. To properly investigate and decide the large number of cases which are brought on appeal to the Commissioner, some pro-

vision should be made in the law by which cases can be assigned to the Assistant Commissioner and his decision thereon be made conclusive. I therefore recommend the passage of a law defining the duties of the Assistant Commissioner to be such as may from time to time be assigned to him by the Commissioner.

#### TRADE-MARKS.

The Supreme Court of the United States, in the cases of *The United States v. Steffens*, *The United States v. Witteman*, *The United States v. Johnson*, (U. S. Reports, 100,) adjudged "that the statute relating to trade-marks cannot be upheld, in whole or in part, as valid and constitutional." Notwithstanding this decision, my predecessor, upon authority of the Secretary of the Interior, continued to receive applications for and issue certificates of the registration of trade-marks. The practice then adopted, which has since been followed, is to notify the applicant in each case of said decision of the Supreme Court, and if after such notice he persists in his request for registration, the application is examined and a certificate of registration issued in the same manner as though no such decision had been rendered.

The reason assigned by applicants for desiring registration is, that they may have preserved somewhere a record of the declaration of their intention to adopt a particular trade-mark or the date when one was adopted.

The fact that under the law of 1870 some eight thousand trade-marks were registered in this Office prior to the decision referred to has made it practically the place where search must be instituted to ascertain whether any particular trade-mark has been adopted, and the facility with which such search can be made by the records of the Office, both as to the adoption and subsequent assignment of such trade-marks, makes the record of registration here particularly valuable.

Some legislation under the circumstances is required.

#### PRINTING.

The specifications of patents issued prior to January 1, 1866, have not been printed, although about one

thousand specifications following that date have been printed during each month of the past year. The drawings for these patents have been photolithographed, and are now ready to be attached to the specifications. When all of these specifications are printed the work of the Office will be greatly lessened, a large number of copyists can be dispensed with, and the public much more promptly served. At least thirty-five thousand dollars will be necessary to continue this work during the next fiscal year.

The general index of patentees, extending from 1790 to 1873, which has been in preparation for several years, is now ready for the printer; but there is no money available to pay the expense of printing it. It is believed that ten thousand dollars will cover such expense, and I recommend an appropriation of that sum for that purpose.

Through some inadvertence the illustrations of the Patent Office Reports for the year 1870 have not been printed. If printed, the reports of this Office would be complete. It is estimated that these illustrations can now be reproduced by the photolithographic process at a cost of about six thousand dollars. The propriety of having the reports of this Office complete must be apparent to all. I therefore recommend an appropriation of the sum of six thousand dollars to complete this work, the same to be immediately available.

I submit herewith a detailed statement of all moneys received for patents, for copies of records or drawings, and from all other sources; also, a statement of the expenditures for contingent and miscellaneous expenses, a list of patents granted, arranged under proper heads, and an alphabetical list of the patentees, with their places of residence, said statements and lists covering the transactions of this Office during the year ending December 31, 1880.

Very respectfully, your obedient servant,

E. M. MARBLE,  
Commissioner of Patents.

Hon. S. J. RANDALL,  
Speaker of the House of Representatives.





# ALPHABETICAL LIST

## OF

# PATENTEEES FOR THE YEAR 1880.

[Patentees of Designs, Trade-Marks, and Labels, and parties who have filed Disclaimers follow this in separate indexes, but precede the Alphabetical List of Inventions.]

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Specification.	Drawing.	Volume.	Page.
Abbe, Horatio H., <i>et al.</i> (See Barton, Elijah C., assignor.)						
Abbe, James T., Springfield, Mass. Water-back for stoves.....	232,164	Sept. 14	342	96	18	588
Abbe, John R., South Windham, Conn. Paper-pulp engine.....	235,844	Dec. 28	985	273	18	1469
Abbott, A. A. (See Burr, Bradley, assignor.)						
Abbott, James M. (See Howard, James S., assignor.)						
Abbott, John M., Tama City, Iowa, assignor of one-half interest to E. Harmon. Inside blind.	223,973	Feb. 3	1	1	17	203
Abbott, William, London, England. Vulcanization of water-proof fabrics.....	226,279	Apr. 6	128	-----	17	769
Abbott, William H. K. (See Spencer, Henry T., assignor.)						
Abel, Anthony, New York, N. Y. Dentist's and barber's chair.....	229,227	June 29	1285	353	17	1455
Abele, Charles, New York, N. Y. Cash-controlling printing apparatus.....	225,203	Mar. 9	261	75	17	515
Abell, Dan, Carson City, Nev. Circulating device for steam-generators.....	233,005	Nov. 2	88	23	18	1001
Abington Tack and Machine Association. (See Hyslop, John, Jr., assignor.)						
Able, Augustus H., Philadelphia, Pa. Water-gage for marine boilers.....	230,849	Aug. 10	307	89	18	305
Abrahams, Herman L. (See Patterson and Abrahams.)						
Abrahams, Isaac B., New York, N. Y. Plastic composition of matter for the manufacture of jewelry and fancy articles.....	226,583	Apr. 20	531	-----	17	857
Absterdam, John, New York, N. Y. Car-wheel.....	227,467	May 11	444	127	17	1061
Absterdam, John, New York, N. Y. Safety-valve. (Reissue)	9,242	June 8	688	188	17	1344
Acid Pump and Siphon Company. (See Nichols, Mauwaring, and Livesey, assignors.)						
Acker, Charles W., Watertown, N. Y., assignor to G. L. Crandall. Carriage-curtain eyelet. (Reissue)	9,029	Jan. 6	261	69	17	47
Ackermann, George, Cincinnati, Ohio. Automatic elevator-gate.....	230,387	July 27	1067	301	18	197
Ackermann, George, Cincinnati, Ohio. Automatic elevator-gate.....	231,388	Aug. 24	919	250	18	417
Actien-Gesellschaft fuer Locomotivban Hohenzollern. (See Lentz, Gustav, assignor.)						
Active Manufacturing Company. (See Monteith, George, assignor.)						
Adair, James, Aleppo township, (Pittsburg P. O.) Allegheny county, Pa. Fire-place.....	230,389	July 27	1069	302	18	197
Adair, James, Aleppo township, (Pittsburg P. O.) Allegheny county, Pa. Fire-place.....	230,390	July 27	1073	{ 302 } 303	{ 18 } 18	198
Adair, Pike, Talbottom, and O. M. Colbert, Butler, Ga. Bee-hive.....	226,821	Apr. 27	805	225	17	913
Adair, Will, Canmer, (Omega P. O.) Ky. Folding shipping-coop.....	230,388	July 27	1068	301	18	197
Adams, Benjamin F., Springfield, Mass. Revolving glass-cutter.....	229,228	June 29	1286	353	17	1455
Adams, Benjamin F., Brooklyn, N. Y. Combined stirrer and thermometer.....	233,006	Nov. 2	89	23	18	1001
Adams, Charles M. (See Broad, Willard, assignor.)						
Adams, Charles M. (See Moulton, Franklin, assignor.)						
Adams, Charles O. (See Fay, William W., assignor.)						
Adams, Chester F., Toledo, Ohio. Radiator for stove-pipes.....	232,429	Sept. 21	677	187	18	650
Adams & Co., F. F. (See Lovell, Melvin N., assignor.)						
Adams, Frank W. (See Roberts, Henry P., assignor.)						
Adams, Franklin F., Erie, Pa. Crank attachment.....	234,841	Nov. 30	1285	345	18	1229
Adams, Frederick W. (See Rathbun and Adams.)						
Adams, George E., assignor to W. S. Godfrey, Providence, R. I. Collar-button.....	232,385	Sept. 21	624	172	18	642
Adams, George F., <i>et al.</i> (See Fisher, James S., assignor.)						
Adams, Hawley, New York, N. Y. Vegetable-crusher.....	223,689	Jan. 20	580	158	17	123
Adams, Henry, and C. C. Haynes, Wilmington, Vt. Liquid-holder.....	229,576	July 6	82	22	18	21
Adams, Henry A., assignor, by mesne assignments, to Sandwich Manufacturing Company, Sandwich, Ill., T. L. French, Cedar Falls, Iowa, and S. D. Locke, Hoosick Falls, N. Y. Harvester. (Reissue)	9,268	June 29	1630	449	17	1501
Adams, Henry B., New York, N. Y. Wringer.....	230,599	Aug. 3	1	1	18	247
Adams, Henry J., <i>et al.</i> (See Adams, Stephen B., assignor.)						
Adams, Henry W., New York, N. Y. Furnace and apparatus for smelting ores and condensing fumes.....	227,710	May 18	721	204	17	1116
Adams, Henry W., New York, N. Y. Roasting and chloridizing furnace.....	232,798	Oct. 5	1	1	18	739
Adams, Hiram R., Worcester, Mass. Manufacture of boots and shoes.....	234,161	Nov. 9	409	111	18	1062
Adams, Horace, <i>et al.</i> (See Mortz, Joseph O., assignor.)						
Adams, James, Glasgow, Great Britain. Gas-stove.....	233,389	Oct. 19	751	{ 205 } 206	{ 18 } 18	577
Adams, James A., assignor to himself and I. N. Haman, Lampasas, Tex. Rotary engine...	223,688	Jan. 20	583	153	17	123
Adams, James W., <i>et al.</i> (See Adams, Stephen B., assignor.)						
Adams, J. McGregor, Chicago, Ill. Coal-oil stove.....	230,850	Aug. 10	308	89	18	305
Adams, J. McGregor, Chicago, Ill. Oil-stove.....	231,884	Sept. 7	2	1	18	525
Adams, John. (See Coriell and Adams.)						
Adams, John D. (See Adams, Thomas, assignor.) (Reissue.)						
Adams, John F., <i>et al.</i> (See Watkins, Alfred E., assignor.)						
Adams, John S., Elgin, Ill. Windmill.....	233,178	Oct. 12	471	130	18	823
Adams, Joseph, Lower St. Clair township, Allegheny county, assignor to D. Evans, D. Chal-linor, and J. Lowery, Pittsburg, Pa. Mechanism for opening the base of lamp-chimneys..	232,625	Sept. 23	903	249	18	696
Adams, Joseph, and E. Renuburg, Baltimore, Md. Can-capping machine.....	227,468	May 11	444	123	17	1061
Adams, Lewis B., <i>et al.</i> (See Coon, Charles, assignor.)						
Adams, Leonidas, Bicknell, Ind. Vehicle-axle lubricator.....	223,242	June 1	99	30	17	1242
Adams, Luther, Mattoon, Ill. Excavator.....	228,798	June 15	803	219	17	1365
Adams, Nathan L., Fort Collins, Colo. Low-water alarm for boilers.....	230,213	July 29	829	234	18	152

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Adams, Peter, Jr. (See Shepard and Adams.)						
Adams, Peter F., Salem, Mass. Invalid-bedstead.....	225,455	Mar. 16	567	165	17	575
Adams, R. & H. (See Holt, Robert, assignor.)						
Adams, Robert A., Grand Rapids, Mich. Graining-machine.....	233,179	Oct. 12	475	130	18	823
Adams, Samuel H., et al. (See Watkins, Alfred E., assignor.)						
Adams, S. Jarvis, Pittsburg, Pa. Molding apparatus.....	235,191	Dec. 7	153	44	18	1307
Adams, S. Jarvis, Pittsburg, Pa. Tube-welding ball.....	225,482	Dec. 14	526	152	18	1377
Adams & Son, Robert. (See Paterson, John, assignor.)						
Adams, Stephen B., Dunreith, assignor of two-thirds interest to H. J. and J. W. Adams, New Lancaster, Ind. Extension-ladder.....	224,374	Feb. 10	466	133	17	299
Adams, Stephen J., Pittsburg, Pa., and W. D. Platter, Goshen, Ind., assignors to said Adams. Pump-bracket.....	235,612	Dec. 21	691	197	18	1411
Adams, Theodore, Philadelphia, Pa. Apparatus for laying railway-tracks.....	228,505	June 8	412	113	17	1301
Adams, Theodore, Philadelphia, Pa. Apparatus for laying railway-tracks.....	229,229	June 29	1287	353	17	1455
Adams, Thomas, Brooklyn, N. Y., assignor to J. D. Adams. Chewing-gum. (Reissue).....	9,152	Apr. 13	515		17	843
Adams, Thomas J., Juniata, Nebr. Water-elevator.....	225,909	Mar. 30	1103	315	17	689
Adams & Westlake Manufacturing Company. (See Miltimore, J. H., assignor.) (Reissue.)						
Adams, William J., Philadelphia, Pa. Type-clamp.....	224,372	Feb. 10	463	{ 132 } 133	17	299
Adamson, Charles E., Gilman, Ind. Running-gear for wagons.....	229,793	July 13	341	95	18	67
Adamson, Edward, Providence, R. I. Reed for looms.....	223,974	Feb. 3	2	1	17	203
Adamsou, J. Arthur, Philadelphia, Pa. Suspenders.....	232,664	Sept. 28	951	261	18	703
Addams, Austin, Freeport, Ill. Plow.....	226,148	Apr. 6	1	1	17	747
Addy, Charles J., Boston, assignor to T. A. Dodge, trustee, Cambridge, Mass. Heel-bur-nishing machine.....	235,115	Dec. 7	61	19	18	1291
Ade, Carl W., Stuttgart, assignor of one-half interest to J. A. S. Biernatzki, Hamburg, Ger-many. Lock.....	224,373	Feb. 10	464	133	17	299
Adel, Henry D., Mansfield, Ill., assignor of one-half interest to H. H. Knepper, Basil, Ohio. Stirrup.....	223,690	Jan. 20	590	158	17	123
Ader, Clement, Paris, France. Visible signal for telephones.....	226,584	Apr. 20	531	149	17	857
Adkerson, Charles B., Decatur, Ill. Flexible cylinder for soldering fruit-cans.....	232,223	Sept. 14	415	115	18	601
Adlam, Samuel, Jr., Boston, Mass. Hose-coupling.....	228,161	June 1	1	1	17	1227
Adler, Marcus A., New York, N. Y. Safety-pocket.....	225,038	Mar. 2	72	20	17	468
Adler, Marcus A., New York, N. Y. Safety-pocket.....	226,470	Apr. 13	375	107	17	821
Adler, Marcus A., New York, N. Y. Safety-pocket.....	231,251	Aug. 17	771	216	18	385
Adler, Max. (See Gunning, James F. J., assignor.)						
Adrianee, John P. (See Brown, Thomas S., assignor.) (Reissue.)						
Adrianee, Walter, Poughkeepsie, N. Y. Horse hay-rake.....	229,349	June 29	1442	397	17	475
Adt, John, New Haven, Conn. Wire-cutting machine. (Reissue).....	9,294	July 13	690	193	18	122
Adt, John B., Baltimore, Md. Meat-cutter.....	230,728	Aug. 3	151	45	18	271
Adt, John B., Baltimore, Md. Tobacco-cutter.....	233,829	Nov. 2	1	1	18	987
Affeltzinger, Rodolph, Turbenthal, assignor to C. A. De Gonzenbach, Zurich, and G. Na-ville, Geneva, Switzerland. Distribution and expansion valve for engines.....	223,871	Jan. 27	817	218	17	170
Affleck, John S., Brooklyn, (Green Point Station,) N. Y. Packing-ring for boiler-tubes.....	229,070	June 22	1118	304	17	1422
Agard, Benjamin E., assignor of one-half interest to F. Conrick, Dubuque, Iowa. Portable stove.....	225,780	Mar. 23	955	275	17	650
Agnew, David F., Allegheny, Pa. Mosquito-bar frame.....	229,071	June 22	1118	304	17	1422
Ahrend, Hermann, assignor to Romer & Co., Newark, N. J. Handcuff.....	226,949	Apr. 27	961	267	17	937
Aiken, John W., Tennessee, Ill. Bridle.....	228,012	May 25	1095	311	17	1186
Aiken, Jonas B., Franklin, N. H. Hose-carriage.....	226,012	Mar. 30	1242	351	17	709
Aiken, Walter, Franklin, N. H., assignor, by mesne assignments, to W. Corey. Machine for making the tongues of machine knitting-needles. (Reissue).....	9,206	May 18	916	261	17	1148
Aiken, Walter, Franklin, N. H. Straight-knitting machine.....	233,061	Oct. 12	327	91, 92	18	799
Aiken, Walter, Franklin, N. H. Straight-knitting machine.....	235,332	Dec. 14	340	93	18	1346
Aikin, John, et al. (See Faulkner, James J., assignor.)						
Aikin, William, and W. W. Drummond, Louisville, Ky. Machine for molding in sand.....	224,570	Feb. 17	695	{ 198 } 199	17	347
Aikman, Peter A., Windsor, Ontario, Canada. Stove-damper.....	233,456	Oct. 19	835	230	18	891
Ainsworth, John C., Bury, and R. K. Roberts, Tottigham, county of Lancaster, Great Britain. Regulating gas-tap.....	223,573	Jan. 13	450	121	17	91
Aitken, William B., Philadelphia, Pa. Brick-machine.....	227,668	May 18	672	192	17	1109
Akam, Charles G., Chicago, Ill. Darning device to be used with sewing-machines.....	223,975	Feb. 3	3	1	17	203
Akens, William H., Penn Line, Pa. Harvester-reel.....	226,585	Apr. 20	532	149	17	857
Aker, Alfred, assignor of one-half interest to J. G. Wilson, Streator, Ill. Cultivator.....	225,264	Mar. 9	327	96	17	526
Akerley, Oliver, assignor to J. A. Horton, Boston, Mass. Metallic brush.....	230,915	Aug. 10	378	109	18	316
Akin, Charles U. (See Castle and Akin.)						
Albany Steam Trap Company. (See Blessing, James H., assignor.)						
Albaugh, George C., Louisville, Ky. Show-case.....	226,645	Apr. 20	604	168	17	868
Albee, Edwin W., Dubuque, Iowa. Show-box cover.....	229,654	July 6	162	45	18	33
Alberger, John L., Buffalo, N. Y., and T. Sault, New Haven, Conn. Condenser for steam-escapes.....	227,342	May 11	303	89	17	1039
Albers, Henry, New Bremen, Ohio. Thill-coupling.....	225,502	Mar. 16	619	{ 179 } 180	17	583
Albert, Charles, and C. Seybold, Cincinnati, Ohio. Time-lock.....	235,330	Dec. 14	335	93	18	1345
Albertson, Albert, Jersey City, N. J., assignor to J. Matthews, New York, N. Y. Bottle-stopper.....	228,433	June 8	325	89	17	1289
Albertson, Albert, Jersey City, N. J., assignor to J. Matthews, New York, N. Y. Bottle-stopper.....	223,434	June 8	326	89	17	1289
Albertson, Albert, Jersey City, N. J., assignor to J. Matthews, New York, N. Y. Bottle-stopper.....	231,518	Aug. 24	1060	297	18	439
Albertson, James. (See Rinehart and Albertson.)						
Albrecht, Hermann, Philadelphia, Pa. Christmas-tree holder.....	224,624	Feb. 17	762	215	17	358
Albrecht, Hermann, Philadelphia, Pa. Fluting-machine. (Reissue).....	9,127	Mar. 23	1098	312	17	674
Albrecht, Wilhelm, assignor to W. Albrecht & Co., Detroit, Mich. Velocipede.....	229,655	July 6	163	45	18	33
Albrecht & Co., William. (See Albrecht, Wilhelm, assignor.)						
Albro, Charles E., Cortland Village, N. Y. Hoisting apparatus. (Reissue).....	9,153	Apr. 13	515	144	17	843
Albro, Charles E., Cortland Village, N. Y. Hoisting apparatus.....	232,386	Sept. 21	625	172	18	642
Alden, Charles, Gloucester, Mass. Preserving fresh fish.....	235,116	Dec. 7	63	19	18	1291
Alderman, Frank R. (See Hindson and Alderman.)						
Alderson, Frederick L., and T. Loftus, said Loftus assignor to A. Gallatin, Sacramento, Cal. Hose-pipe nozzle.....	225,092	Mar. 2	135	30	17	480
Aldrich, Frank E., Boston, Mass. Machine for preparing light-weight rubber cloth.....	235,117	Dec. 7	64	19	18	1291
Aldrich, George W. (See Coleman and Aldrich.)						
Aldrich, George W., Brooklyn, N. Y. Liquid-measuring tank and cock.....	228,799	June 15	804	219	17	1369
Aldrich, Lyman H., Shortsville, N. Y. Bag-holder and truck therefor.....	234,381	Nov. 16	697	187	18	1119

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Aldrich, Newton, <i>et al.</i> (See Enos, George P., assignor.)						
Alexander, Alexander G., Detroit, Mich. Water-closet.	234,934	Nov. 30	1391	374	18	1246
Alexander, Amasa, Tilton, N. H. Machinery for stretching hat-brims.	225,782	Mar. 23	957	276	17	650
Alexander, Charles M., Washington, D. C. Automatic toy frog.	224,375	Feb. 10	467	134	17	300
Alexander, Edward P., Clinton, N. Y. Nut-lock.	230,913	Aug. 10	377	109	18	315
Alexander, George B. (See Gill and Alexander.)						
Alexander, Horace C., New York, N. Y. Tubular lantern.	233,390	Oct. 19	753	206	18	877
Alexander, James H., Mystic River, Conn. Wrench.	226,149	Apr. 6	2	1	17	747
Alexander, James H., Oil City, Pa. Refining petroleum, &c.	229,297	June 29	1372	377	17	1466
Alexander, John L. and W. E., Lebanon, Ind. Shingle-shaving machine.	234,217	Nov. 9	485	{ 132 133 }	18	1075
Alexander, John L. and W. E., Hazelrigg, Ind. Band-cutter.	235,483	Dec. 14	528	152	18	1377
Alexander, John W., assignor of one-half interest to A. J. Pouch, New York, N. Y. Crane for loading vessels.	224,505	Feb. 17	615	179	17	335
Alexander, Robert M., Lincoln, Ala. Seed-planter and fertilizer-distributor.	231,519	Aug. 24	1060	298	18	439
Alexander, Urbana D., Chicago, Ill. Machine for making sheet-metal pans.	227,196	May 4	125	36, 37	17	998
Alexander, Urbana D., Chicago, Ill. Dust-pan.	234,644	Nov. 23	1037	279	18	1183
Alexander, William A. (See Maguire and Alexander.)						
Alexander, William E. (See Alexander, John L. and W. E.)						
Alexander, William G., and G. A. Wells, Oskaloosa, Iowa. Furnace for heating soldering-coppers.	229,935	July 13	498	138	18	91
Alford, James W., <i>et al.</i> (See Gammill, George W., assignor.)						
Alford, Kinchen B., <i>et al.</i> (See Gammill, George W., assignor.)						
Algeo, John. (See Clark, James W., assignor.)						
Alger, Israel F., Fitchburg, Mass. Horse-hitcher.	233,654	Oct. 23	1082	301	18	942
Alioth, Rodolphe, assignor to Chancel, Veillon, Alioth & Co., Basle, Switzerland. Apparatus for detecting knots in yarn.	225,039	Mar. 2	73	20	17	468
Alissoff, Michael, St. Petersburg, Russia, assignor to C. G. Kleberg, London. Copying-pad.	231,517	Aug. 24	1059	297	18	439
Alker, John H., assignor to Jones & Langhins, Pittsburg, Pa. Bolt and rivet machine.	224,264	Feb. 10	335	97	17	279
Allan, Alexander, Jr., Adlestree, England. Water-gate.	232,322	Sept. 21	543	151	18	629
Allee, Seth R., Lynnville, Iowa. Check-rover.	229,350	June 29	1444	397	17	1475
Allen, Alexander B., Cincinnati, Ohio. Manufacture of substitutes for hard rubber.	229,794	July 13	342	.....	18	67
Allen, Alice M., <i>et al.</i> (See Bement, Ernest M., assignor.)						
Allen, Arthur M., New York, N. Y. Velocipede.	223,691	Jan. 20	591	159	17	123
Allen, Berryman S., Hurricane Switch Station, assignor to J. T. Allen, Pulaski, Tenn. Cotton-chopper.	234,219	Nov. 9	487	{ 133 134 }	18	1076
Allen, Charles E., Mansfield, Pa. Multiplying scale-beam.	231,516	Aug. 24	1058	297	18	438
Allen, Charles F., South Abington, Mass. Watch-crystal.	230,214	July 20	830	235	18	153
Allen, Charles W., Pine Ridge Agency, Dak. Ter. Hay rake and buncher.	230,982	Aug. 10	454	130	18	327
Allen, Chauncey F., Waterbury, Conn. Corset.	230,163	July 20	772	215	18	143
Allen, Chauncey F., Waterbury, Conn. Corset.	234,380	Nov. 16	697	187	18	1119
Allen, Chester F., assignor of one-half interest to E. O. Briggs, Paw Paw, Mich. Transfer-truck for cars.	227,072	June 22	1119	304	17	1422
Allen, Ethan, Kalamazoo, Mich. Jointer and colter block.	223,331	Jan. 27	766	205	17	162
Allen, Frank, and F. A. Grater, assignors to American Ship Windlass Company, Providence, R. I. Capstan.	231,949	Sept. 7	85	22	18	538
Allen, Frank B., <i>et al.</i> (See Harrison, William H., assignor.)						
Allen, Frank H. (See Perkins and Allen.)						
Allen, Fred. A., assignor of one-half interest to F. E. Harding, Monmouth, Ill. Frame for supporting dead birds as decoys.	230,600	Aug. 3	2	1	18	247
Allen, George S. (See Ellrich and Allen.)						
Allen, Henry, Silvertown, Oreg. Apparatus for operating roller-gates.	224,121	Feb. 3	175	50	17	232
Allen, Henry, Silvertown, Oreg. Apparatus for opening hinged gates.	228,013	May 25	1095	311	17	1186
Allen, Henry, Buckingham P. O., Pa. Fan-blower.	228,293	June 1	161	45	17	1252
Allen, James B., Cranston, R. I. Button.	231,948	Sept. 7	84	22	18	538
Allen, James D., Amboy, Ill. Watch-maker's tool.	223,211	Jan. 6	1	1	17	3
Allen, John F., New York, N. Y. Riveting-machine.	229,795	July 13	342	95	18	67
Allen, John F., Brooklyn, assignor to G. T. Hope, Bay Ridge, N. Y., and C. T. Porter, Philadelphia, Pa. Balanced valve. (Reissue.)	9,303	July 20	1038	293	18	186
Allen, John H., Frankfort, W. Va. Spinning-machine.	227,873	May 25	925	265	17	1161
Allen, John M. (See Palmer, George H., assignor.)						
Allen, John T. (See Allen, Berryman S., assignor.)						
Allen, Joseph, Palmyra, N. Y. Folding reclining-chair.	224,319	Feb. 10	401	{ 113 114 }	17	289
Allen, Joseph H., Sacramento, Cal. Belt-tightening attachment for sewing-machines.	228,850	June 15	863	235	17	1377
Allen, Leicester, Brooklyn, N. Y. Optical lens.	223,627	Jan. 20	523	141	17	113
Allen, Leicester, Brooklyn, N. Y. Process and apparatus for cooling air.	231,886	Sept. 7	5	1	18	525
Allen, Luther P., Greenfield, Ill. Gate.	234,515	Nov. 16	851	227	18	1145
Allen, Marshall J., New York, N. Y., and W. E. Bradley, Frankfort, Ky. Making whisky.	229,653	July 6	161	.....	18	33
Allen, Maurice P., Green Point, N. Y. Milk-receptacle.	228,583	June 8	510	137	17	1316
Allen, Morris S., <i>et al.</i> (See Bement, Ernest M., assignor.)						
Allen, Nicholas I., Somerville, assignor to W. F. Draper, Hopedale, Mass. Loom-temple.	223,976	Feb. 3	3	2	17	203
Allen, Norman, Rockaway Beach, N. Y. Fan.	226,260	Apr. 6	128	36	17	769
Allen, Oscar, Mount Morris, N. Y. Spoke-throating machine.	230,983	Aug. 10	455	130	18	327
Allen, Richard N., Hudson, N. Y. Railway-rail.	225,910	Mar. 30	1105	315	17	689
Allen, Sam. (See Daniels, Aaron M., assignor.)						
Allen, Samuel L., Cinnaminson, N. J. Plow.	227,606	May 18	601	173	17	1099
Allen, Stephen M., Duxbury, Mass. Grinding-cylinder for reducing wood to pulp.	223,304	Jan. 6	119	30	17	22
Allen, Stephen M., Duxbury, Mass. Wood-grinder for making paper-pulp.	224,623	Feb. 17	760	215	17	358
Allen, Stephen M., Duxbury, Mass. Wood-grinder for making paper-pulp.	226,013	Mar. 30	1243	351	17	710
Allen, Stephen M., Duxbury, Mass. Manufacture of paper-pulp from wood.	229,073	June 22	1120	304	17	1422
Allen, Stephen M., Duxbury, Mass. Wood-grinder for making paper-pulp.	229,513	July 6	1	1	18	9
Allen, Stephen M., Duxbury, Mass. Wood-grinder for making paper-pulp.	232,431	Sept. 21	680	187	18	651
Allen, Stephen M., Duxbury, Mass. Manufacture of artificial-stone grinders for making wood pulp, &c.	235,721	Dec. 21	816	.....	18	1432
Allen, William A., Ash Grove, Mo. Fence.	231,640	Aug. 31	1209	339	18	469
Allen, William B., Orleans, N. Y. Bag-holder.	226,586	Apr. 20	533	149	17	857
Allen, William B., Orleans, N. Y. Lifting-jack.	232,430	Sept. 21	678	187	18	650
Allen, William B., Orleans, N. Y. Hand-truck.	233,720	Oct. 26	1155	321	18	954
Allen, William D., Sheffield, Great Britain. Furnace for heating ingots, blooms, &c.	234,162	Nov. 9	410	{ 111 112 }	18	1062
Allen, William H., New York, N. Y. Grain-meter.	223,692	Jan. 20	593	159	17	123
Allen, William H., Camden, N. J. Ventilating and damper attachment.	231,139	Aug. 17	631	179	18	363
Allerton, George M., Nantucket, Conn. Manufacture of rubber boots and shoes.	223,091	Mar. 2	134	.....	17	480
Alley, John J., Albion, Mich. Plow.	226,150	Apr. 6	2	1	17	747

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Alley, John J., Albion, Mich. Plow.....	230,457	July 27	1160	327	12	211
Allgire, James R., Indianapolis, Ind. Machine for cutting tray-blanks.....	227,711	May 18	729	205	17	1117
Allien, Victor S. (See Palmer, Isaac E., assignor.) (Reissue.)						
Allington, David K., East Saginaw, Mich. Steam-evaporating apparatus.....	225,731	Mar. 23	957	{ 275 276 }	17	650
Allington, David K., East Saginaw, Mich. Water-heater.....	234,645	Nov. 23	1037	279	18	1183
Allis, Edward P. (See Hubbell, Joseph, assignor.) (Reissue.)						
Allis, Thomas V. (See Collins, William G., assignor.) (Reissue.)						
Allis, Thomas V., New York, N. Y. Device for cutting barbs on fence material.....	232,870	Oct. 5	94	25	18	733
Allis, Thomas V., New York, N. Y. Blank for barbed metallic fence-rods.....	234,936	Nov. 30	1393	374	18	1247
Allison, Andrew, Jr., Philadelphia, Pa. Electric alarm for letter-holders.....	234,218	Nov. 9	486	133	18	1076
Allison, Asa H., Millville, Ind., assignor to Eagle Manufacturing Company. Cultivator. (Reissue)	9,085	Feb. 17	920	263	17	336
Allison, James J., Nelson, Ill. Bottle-stopper.....	224,122	Feb. 3	176	50	17	232
Allison, James J., Nelson, Ill. Bottle-stopper.....	228,582	June 8	509	137	17	1316
Allison, Oscar W., Rochester, N. Y. Cigarette-machine.....	231,947	Sept. 7	81	21, 22	18	537
Allison, William C., and J. Hoskin, Philadelphia, Pa. Apparatus for establishing permanent channels in rivers, &c.....	231,698	Aug. 31	1274	358	18	479
Allison, William C., Philadelphia, Pa. Coupling for tubes.....	232,432	Sept. 21	681	187	18	651
Allison, William C., Philadelphia, Pa. Machine for handling tubes.....	235,397	Dec. 14	415	117	18	1353
Allonas, Joseph, deceased, (M. D. Harter, administrator,) Mansfield, Ohio. Traction-wheel.....	234,220	Nov. 9	489	134	18	1076
Allonas, Joseph, deceased, Mansfield, Ohio, (M. D. Harter, executor,) Traction-wheel.....	235,722	Dec. 21	818	229	18	1432
Allsop, Thomas J., and E. McKenna, Brooklyn, N. Y. Butcher's tag.....	229,514	July 6	3	1	18	9
Allt, Edmund, Brooklyn, N. Y. Gate-valve.....	233,180	Oct. 12	475	131	18	823
Allwood, Thomas, Phenix, assignor to himself and L. Walker, River Point, R. I. Barrel-platform.....	231,641	Aug. 31	1210	339	18	469
Almond, David, Newark, N. J. Fur-mixer or deviling-machine.....	230,164	July 20	773	215	18	143
Almqvist, Andrew P., New Windsor, Ill. Machine for trimming spoke-tenons.....	234,937	Nov. 30	1394	375	18	1247
Almqvist, August W. (See McLoughlin and Almqvist.)						
Almy, George F., Delphos, Ohio. Wood-bending machine.....	234,935	Nov. 30	1392	374	18	1246
Almy, George W., et al. (See Chase, William D., assignor.)						
Almy, Harvey S., et al. (See Chase, William D., assignor.)						
Alsing, Frederik, assignor to himself, H. Sachmann, and C. Dons, Copenhagen, Denmark. Recording ship's compass.....	230,215	July 20	831	235	18	153
Alsing, Johan K., New York, N. Y. Reducing and triturating cylinder.....	229,577	July 6	83	22	18	21
Alston, William C., Perrysville, Pa. Cattle-car.....	225,911	Mar. 30	1106	316	17	689
Altaffer, George W., Cross Keys, Va. Harrow.....	235,484	Dec. 14	529	152	18	1378
Althaus, Ernst F., Breslau, and O. Jungbann and H. Ulsmann, Stadt Koenigshütte, Prussia, Germany. Fire-proof compound for furnace-linings, converter-bottoms, tuyeres, &c.....	234,737	Nov. 23	1145	-----	18	1199
Althof, Bergmann & Co. (See Schwartz, Charles, assignor.)						
Altman, David, Chattanooga, Tenn. Handcuff.....	226,950	Apr. 27	962	267	17	938
Altman, Moritz, Camden, N. J., and J. Davey, Philadelphia, Pa. Suspenders.....	223,628	Jan. 20	524	141	17	113
Altman, Moritz, Camden, N. J. Suspender-clamp.....	226,693	Apr. 20	655	182	17	876
Alverson, Andrew H., New Haven, Conn. Bird-cage.....	227,195	May 4	125	36	17	998
Amberg, William A. (See Hoffman, Austin D., assignor.)						
Amberg, William A., Chicago, Ill. Letter-file.....	224,981	Mar. 2	1	1	17	457
Ambler, Artemas C. (See Ambler, James A. and A. C.)						
Ambler, Arthur A., assignor of two-thirds interest to A. F. Robertson and E. K. Jacques, St. Cloud, Minn. Odometer.....	230,981	Aug. 10	452	129	18	327
Ambler, James A., Natick, Mass. Tree for boots and shoes.....	224,506	Feb. 17	617	179	17	335
Ambler, James A., Natick, and E. L. Wires, Milford, Mass. Boot-treecing apparatus.....	227,069	May 18	674	192	17	1109
Ambler, James A., Natick, Mass. Boot-treecing apparatus.....	230,601	Aug. 3	4	1	18	247
Ambler, James A., Natick, Mass. Mechanism for abrading and polishing boot and shoe soles.....	232,323	Sept. 21	545	151	18	629
Ambler, James A. and A. C., Natick, Mass. Crimping-machine for boots and shoes.....	234,163	Nov. 9	412	112	18	1062
Ambler, James A., Natick, Mass. Mechanism for abrading and polishing boot and shoe soles. (Reissue.)	9,504	Dec. 21	968	263	18	1459
Ambuhl, Jacob, Morristown, N. J. Coloring and hardening bricks.....	230,729	Aug. 3	152	-----	18	271
Ament, Sylvester E., Aurora, Ill. Windmill.....	235,333	Dec. 14	342	94	18	1346
American Automatic Organ Company. (See Arno, Oliver H., assignor.)						
American Bank Note Company. (See Macdonough, James, assignor.)						
American Bell Telephone Company. (See Bell, Alexander G., assignor.)						
American Bell Telephone Company. (See Bell and Tainter, assignors.)						
American Bell Telephone Company. (See Cheever, Joseph H., assignor.)						
American Bell Telephone Company. (See Livermore, Joseph P., assignor.)						
American Boiler and Furnace Company. (See Fisher, William M., assignor.)						
American Boiler and Furnace Company. (See Fisher, William M., assignor.) (Reissue.)						
American Buttonhole, Overseaming and Sewing Machine Company. (See Rominger, George S., assignor.)						
American Chair Seat Company. (See Watkins, Gardner A., assignor.) (Reissue.)						
American Electric Company. (See Thomson, Elihu, assignor.)						
American Electric Company. (See Thomson and Houston, assignors.)						
American Fencing Company. (See Cary, Alanson, assignor.)						
American Grinding Mill Company. (See Hobler and Good, assignors.)						
American Machine Company et al. (See Potts, Mary F., assignor.) (Reissue.)						
American Metallic Packing Association. (See Tripp, Thomas, assignor.)						
American Meter Company. (See Carpenter, Azariah, assignor.)						
American Meter Company. (See Hopper, Thomas C., assignor.)						
American Optical Company. (See Wells, George W., assignor.)						
American Patent Underwear Company. (See Baker, John S., assignor.)						
American Rapid Telegraph Company. (See Anderson and Foote, assignors.)						
American Rapid Telegraph Company. (See Foote and Anderson, assignors.)						
American Screw Company. (See Rogers, Charles D., assignor.)						
American Ship Windlass Company. (See Allen and Grater, assignors.)						
American Ship Windlass Company. (See Remington and Manton, assignors.) (Reissue.)						
American Shoe Tip Company. (See Stockwell, John A., assignor.) (Reissue.)						
American Standard Brake Company. (See Gue and Field, assignors.)						
American Union Telegraph Company. (See Van Hoevenbergh, Henry, assignor.)						
American Vulcanizing Wood and Lumber Company. (See Robbins, Louis S., assignor.) (Reissue.)						
Ames, David J. and E. J., Austin, Minn. Feed-grinding mill.....	226,152	Apr. 6	5	2	17	747
Ames, Ezra J. (See Ames, David J. and E. J.)						
Ames, Hugh O., New Orleans, La. Steam-trap.....	226,951	Apr. 27	963	267	17	933
Ames, Hugh O., New Orleans, La. Evaporating-pan.....	235,613	Dec. 21	692	197	18	1411
Ames Iron Works. (See Michener, William R., assignor.)						

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Ames Iron Works. (See Michener, William R., assignor.) (Reissue.)						
Ames, Samuel G., assignor of one-fourth interest to G. W. Stackpole, Boston, Mass. Inking apparatus.	223,832	Jan. 27	767	205	17	162
Ames, Warren W., De Ruyter, N. Y. Addressing-machine.	235,485	Dec. 14	529	152	18	1388
Ames, William D., Cape Elizabeth, Me. Sprinkler.	231,950	Sept. 7	87	22	18	538
Amesbury, George W., New York, N. Y. Cutter-head.	226,381	Apr. 13	267	79	17	805
Amesbury, George W., Philadelphia, Pa. Setting-gage for cutter-heads.	230,914	Aug. 10	377	109	18	316
Amick, Pleasant, assignor to himself and G. W. Wilson, Chicago, Ill. Upholstering material.	226,261	Apr. 6	129	36	17	709
Amidon, Charles H., Buffalo, N. Y. Bit-brace.	226,646	Apr. 20	605	168	17	868
Ammarell, Christian, assignor to himself and F. Hohmaier, East New York, N. Y. Car-brake.	228,584	June 8	511	137	17	1316
Ammerman, Charles W., Orangeville, Pa. Sand-guard for vehicle-wheels.	226,587	Apr. 20	535	150	17	857
Amor, Joseph, and A. J. Lane, Glenville, Ohio. Poison-distributor.	226,588	Apr. 20	535	150	17	858
Amor, William G., Cleveland, Ohio. Vapor-burner.	231,887	Sept. 7	10	2	18	526
Amory, Francis, <i>et al.</i> (See Harmon, Edward W., assignor.)						
Amory, Francis, <i>et al.</i> (See Knibley, John W., assignor.)						
Amory, Francis, <i>et al.</i> (See McCarty, Cremora F. and W., assignors.)						
Amory, Harcourt, Boston, Mass. Electric signal-bell.	228,851	June 15	863	235	17	1377
Amstutz, Joseph, Harlan, Ind. Rake-reel for reapers and mowers.	225,315	Mar. 9	404	117	17	537
Amüdsen, Hans and O., Little Falls, Wis. Supplying water to steam-boilers.	227,145	May 4	72	20	17	989
Amüdsen, Hans and O., Little Falls, Wis. Device for feeding steam-boilers. (Reissue.)	9,459	Nov. 9	688	186	18	1109
Amüdsen, Ole. (See Amüdsen, Hans and O.)						
Amüdsen, Ole. (See Amüdsen, Hans and O.) (Reissue.)						
Aneelin, Anatole, Paris, France. Heating railway and other carriages.	224,507	Feb. 17	618	.....	17	335
Anders, Jacob, assignor to himself and S. Netscher, Pacific, Mo. Hand corn-planter.	227,197	May 4	129	37	17	998
Anders, George L., Boston, Mass. Switch for telephone-circuits.	228,294	June 1	162	45	17	1252
Anders, George L., Boston, Mass. Switch and signaling apparatus for telephone-systems.	228,586	June 8	517	{ 138 139 }	17	1317
Anders, George L., Boston, and T. A. Watson, Everett, Mass. Individual signaling apparatus for district telephone-systems.	229,298	June 29	1373	{ 377 378 }	17	1466
Anders, George L., Boston, and T. A. Watson, Everett, Mass. Switch for telephone-circuits.	229,299	June 29	1375	378	17	1467
Anders, George L., Boston, Mass. Telephone-transmission.	231,466	Aug. 24	1002	282	18	430
Anders, George L., Boston, Mass. Signaling apparatus for telephone-lines.	231,888	Sept. 7	11	2	18	526
Anders, George L., Boston, Mass. Telephone.	233,592	Oct. 26	1011	281	18	930
Anderson, Hans J., Spring Valley, Minn. Heater and ventilator.	235,486	Dec. 14	530	153	18	1378
Anderson, Allen L., assignor of one-half interest to J. H. Foote, Cincinnati, Ohio. Car-axle box.	228,720	June 15	701	193	17	1355
Anderson, Charles W., Pawtucket, R. I. Railway-head.	223,629	Jan. 20	525	141	17	113
Anderson, Euclid. (See Barker and Anderson.)						
Anderson, Frank. (See Foote and Anderson.)						
Anderson, Frank, Peekskill, and T. M. Foote, assignors to American Rapid Telegraph Company, New York, N. Y. Mechanism for perforating paper for telegraph purposes.	228,585	June 8	512	138	17	1316
Anderson, George D., Oakland, Cal. Combined whip and rein holder.	224,982	Mar. 2	2	1	17	457
Anderson, George P. (See Hogeland, Israel, assignor.)						
Anderson, George W., assignor of one-half interest to K. D. Hawley and L. C. Anderson, Elizabethtown, Ind. Slide-valve for steam-engines.	223,693	Jan. 20	594	159	17	123
Anderson, Henry, San Francisco, assignor to J. Wilcoxson, Yolo County, Cal. Safety-nut for the axles of vehicles, &c.	235,060	Dec. 7	1	1	18	1281
Anderson, Horatio. (See Beals, David S., assignor.) (Reissue.)						
Anderson, James, Nevada, Ohio. Washing-machine.	225,316	Mar. 9	405	118	17	537
Anderson, James R., and J. P. Hastings, Cincinnati, Ohio, assignors to said Anderson and H. A. Harris. Corner-brace for carriage-bodies.	230,852	Aug. 10	309	90	18	305
Anderson, John L., Muncie, Ind. Gate-hinge.	234,382	Nov. 16	698	187	18	1119
Anderson, John W. (See Mellinger and Anderson.)						
Anderson, John W., <i>et al.</i> (See Mellinger, Christian K., assignor.) (Reissue.)						
Anderson, John W., Lancaster, Pa. Extension bow-iron for carriages.	226,015	Mar. 30	1245	352	17	710
Anderson, Julius B., <i>et al.</i> (See Officer, William E., assignor.)						
Anderson, Leman C., <i>et al.</i> (See Anderson, George W., assignor.)						
Anderson, Leman C., Elizabethtown, Ind. Gate.	231,951	Sept. 7	87	23	18	538
Anderson, Nathan M. (See Rossiter, Lindsey, assignor.)						
Anderson, Robert C., Woodgreen, county of Middlesex, England. Galvanic battery.	223,212	Jan. 6	2	1	17	3
Anderson, Samuel J., and A. J. Talbot, Cazenovia, N. Y. Combined baby swing and cradle.	228,014	May 25	1096	312	17	1186
Anderson, William H., Brooklyn, N. Y. Apparatus for destroying insects.	229,230	June 29	1288	353	17	1455
Anderson, William J., Hillsdale, Iowa. Weather-strip.	223,796	Jan. 27	721	195	17	135
Andrade & Co., Joseph. (See Davis, Abbott R., assignor.)						
Andres, Hiram, Philadelphia, Pa. Suspenders.	226,952	Apr. 27	964	268	17	938
Andrew, John, Boston, Mass. Street-car.	226,822	Apr. 27	806	225	17	913
Andrew, William E., Jersey City, N. J. Process and apparatus for rendering fats. (Reissue.)	9,254	June 15	997	271	17	1396
Andrew, William E., Jersey City, N. J. Cover for vessels.	234,842	Nov. 30	1286	345	18	1229
Andrews, Emanuel, Williamsport, Pa. Auxiliary saw-handle.	231,977	Sept. 7	130	33	18	545
Andrews, James, Biddeford, Me. Leveling attachment for earth-cars.	232,224	Sept. 14	416	115	18	601
Andrews, Joseph F., Nashua, N. H. Coal-sifter.	235,061	Dec. 7	1	1	18	1281
Andrews, Matthew S., Somerville, assignor to J. W. Tufts, Medford, Mass. Cooler for soda-water and other similar apparatus.	223,462	Jan. 13	314	84	17	69
Andrews, Nahum H., Springfield, Ohio. Ash-hod.	226,589	Apr. 20	536	150	17	858
Andrews, Thomas H., Keokuk, Iowa, assignor of one-half to F. Quinn. Brick-machine.	233,909	Nov. 2	92	24, 25	18	1002
Andrews, Truman L., Cold Brook, N. Y. Fifth-wheel.	231,140	Aug. 17	631	179	18	363
Andrus, Dexter A. K. (See Sherer, George W., assignor.)						
Andrus, Newell P., assignor of one-half interest to S. Thorp, Paterson, N. J. Appliance for lighting looms.	232,102	Sept. 14	275	77	18	577
Angamar, Eugene H., New Orleans, La., assignor to Surface Motor Company of New York City. Boiler for locomotives.	226,694	Apr. 20	655	182	17	877
Angamar, Eugene H., New Orleans, La. Apparatus for removing snow and ice from railways.	229,936	July 13	500	139	18	91
Angamar, Eugene H., New Orleans, La. Apparatus for removing snow and ice from railways and streets.	232,225	Sept. 14	417	115	18	601
Angel, Charles H., <i>et al.</i> (See Dreher, Hiram J., assignor.)						
Angel, William. (See Turner and Angel.)						
Angell, Albert, East Orange, N. J. Machine for disintegrating ramie, &c.	227,469	May 11	445	128	17	1062
Angell, Eugene H., Mooers, N. Y. Tethers.	226,014	Mar. 30	1244	351	17	710
Annan, Charles F., Boston, Mass., assignor, by mesne assignment, to Eastern Paper Bag Company. Paper-drier.	233,590	Oct. 26	1005	279	18	929



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Annan, Charles F., Boston, Mass., assignor, by mesne assignment, to Eastern Paper Bag Company. Paper-bag machine.	233,591	Oct. 26	1006	{ 280 281 }	{ 18 }	929
Annan, Chalrette G., Brooklyn, N. Y. Salve.	229,937	July 13	500	.....	18	91
Annear, John H., Weatherford, Tex. Feed-water heater.	230,984	Aug. 10	456	130	18	329
Anshutz, Jacob, Philadelphia, Pa. Machine for cleaning and treating bran.	234,843	Nov. 30	1287	345	18	1229
Ausonia Clock Company. (See Davies, Edward, assignor.)						
Anthes, Frederic, assignor to E. J. Brooks & Co., New York, N. Y. Sealing-press.	235,398	Dec. 14	417	117	18	1359
Anthony & Co., E. and H. T. (See Brewer, Lycurgus, assignor.)						
Anthony & Co., E. and H. T. (See Steddard, Isaac H., assignor.)						
Anthony, Edgar W., Boston, Mass., assignor to Smith & Anthony Stove Company. Sink-trap.	225,503	Mar. 16	620	{ 180 181 }	{ 17 }	583
Anthony, Edgar W., assignor to Smith & Anthony Stove Company, Boston, Mass. Damper for furnaces.	229,515	July 6	3	1, 2	18	9
Anthony, Edgar W., assignor to Smith & Anthony Stove Company, Boston, Mass. Grate for stoves.	229,852	July 13	408	{ 112 113 }	{ 18 }	77
Anthony, Edgar W., assignor to Smith & Anthony Stove Company, Boston, Mass. Stove.	230,851	Aug. 10	309	89, 90	18	305
Anthony, Jesse B., et al. (See Babcock, Stephen E., assignor.)						
Anthony, Jesse B., et al. (See Burns, John, assignor.)						
Anthony, Jesse B., et al. (See Fitzhugh, Henry M., assignor.)						
Anton, John A., Monongahela, Pa. Miner's lamp.	229,351	June 29	1445	398	17	1475
Apfeld, John M., Sauk Centre, Minn. Apparatus for moving houses.	223,266	Jan. 6	71	18	17	14
Appel, Daniel, assignor of one-half interest to N. W. Taylor, Cleveland, Ohio. Tube-machine.	228,162	June 1	2	1	17	1227
Appel, Daniel, assignor to himself and N. W. Taylor, Cleveland, Ohio. Paper-bag machine.	231,642	Aug. 31	1210	{ 339 340 341 }	{ 18 }	469
Appel, Daniel, Cleveland, Ohio. Paper bag.	234,837	Nov. 23	1269	341	18	1220
Appel, Daniel, Cleveland, Ohio. Paper bag.	234,838	Nov. 23	1271	341	18	1220
Appel, Daniel, Cleveland, Ohio. Paper bag.	234,839	Nov. 23	1272	342	18	1220
Appel, Daniel, Cleveland, Ohio. Paper bag.	234,840	Nov. 23	1273	342	18	1221
Appell, J. Frederick, Chicago, Ill. Shirt.	234,265	Feb. 10	338	97	17	279
Appell, J. Frederick, Chicago, Ill. Shirt.	228,721	June 15	702	193	17	1355
Appleby, John F., Beloit, Wis. Device for raising and lowering harvesters.	228,971	June 22	1011	275	17	1407
Appleby, P. E. (See Baldwin, Ozro J., assignor.)						
Appleby, Stephen V., Spotswood, N. J. Apparatus for grinding tobacco.	226,953	Apr. 27	965	268	17	938
Applegate, Adoniram J., and B. E. Shattuck, Cambridge, Mass.; said Shattuck assignor to said Applegate. Reversible broiler.	224,761	Feb. 24	933	267	17	403
Applegate, John H., Malden, assignor to G. McKay, trustee, Cambridge, Mass. Button-hole sewing-machine.	234,451	Nov. 16	779	209	18	1133
Applegate, John N. (See Applegate, Joseph F., assignor.)						
Applegate, Joseph F., assignor of one-fourth interest to J. N. Applegate, Jeffersonville, Ind. Cooking-stove.	232,226	Sept. 14	418	116	18	601
Appleton, Charles, Wigan, England. Fastening for bags.	233,908	Nov. 2	91	24	18	1002
Appleton, James, Montreal, Quebec, Canada. Decoy-duck.	235,845	Dec. 28	987	273	18	1469
Arbuckle, John, Brooklyn, N. Y. Apparatus for cleaning grain, &c.	226,471	Apr. 13	376	107	17	821
Arbuthnot, William. (See Holtzman, Emil, assignor.)						
Archdeacon, William, Chicago, Ill. Compound for curing and preserving meats.	234,844	Nov. 30	1288	.....	18	1229
Archenbrenn, Charles F., Waterloo, Mich. Car-coupling.	230,458	July 27	1161	327	18	211
Archer, George W. (See La Salle, B. Frank, assignor.)						
Archer, William S. (See Finn and Archer.)						
Archer, William S., and H. L. Pope, Dayton, Ohio. Oil-press mat.	227,670	May 48	675	192	17	1110
Ardito, John. (See Pagliughi and Ardito.)						
Argo, Adolph, Schloss Chemnitz, Saxony, Germany. Machine for manufacturing wire bed-dles.	233,593	Oct. 26	1012	282	18	930
Argue, Henry H. (See Dingman and Argue.)						
Arkell, James, and A. G. Richmond, assignors to Juvet & Co., Canajoharie, N. Y. Globe.	227,713	May 18	732	205	17	1118
Arkins, Joseph, assignor of one-half to E. F. Slocum, Chicago, Ill. Velocipede.	235,399	Dec. 14	419	117	18	1359
Armanet, Jaque, Oswego, N. Y. Wooden measure.	229,231	June 26	1289	354	17	1455
Arment, Isaac N., Dayton, Wash. Ter. Opener for cans and bottles.	234,646	Nov. 23	1038	279	18	1183
Armour, Michael C., Chicago, Ill. Kerosene-stove.	223,977	Feb. 3	4	2	17	203
Arms, Bell & Co. (See Hildebrand, Charles, assignor.)						
Armstrong, Benjamin A., New York, N. Y. Drawer-front.	224,066	Feb. 3	113	33	17	222
Armstrong, Daniel, Chicago, Ill. Nail-forging machine.	226,437	Apr. 13	338	97	17	815
Armstrong, Frank. (See Vinton, John H., assignor.)						
Armstrong, George, and D. L. Murcheson, Weathersfield, Ill.; said Murcheson assignor to said Armstrong. Gang-plow.	223,833	Jan. 27	767	205	17	162
Armstrong, Joel, Marysville, Ohio, assignor of one half interest to D. F. McKittrick. Door-securer.	227,712	May 18	731	205	17	1117
Armstrong, John R., et al. (See Fitt, Frederick, assignor.)						
Armstrong, Noah, Glendale, Mont., E. C. Atkins and H. F. Brown, Indianapolis, Ind. Smelting-furnace.	228,832	June 15	865	236	17	1377
Armstrong, Samuel, Newark, N. J. Frame for pocket-books, &c.	230,985	Aug. 10	457	130	18	328
Armstrong, Samuel, Newark, N. J. Piston-rod packing.	230,986	Aug. 10	458	131	18	328
Armstrong, Samuel, Newark, N. J. Piston-head.	230,987	Aug. 10	459	131	18	328
Armstrong, Thomas M., Roxana, Mich. Bath-tub.	230,684	Aug. 3	105	30	18	263
Armstrong, William, assignor of two-thirds interest to J. Fitz and J. Farrin, Martinsburg, W. Va. Hand signal-lantern.	224,065	Feb. 3	113	33	17	222
Armstrong, William, De Pere, Wis. Stump-extractor.	224,376	Feb. 10	467	134	17	300
Armstrong, William, assignor of one-half to W. W. Barcus, Chicago, Ill. Portable folding canoe.	234,164	Nov. 9	413	112	18	1062
Arndt, Henry, St. Louis, Mo. Bath-tub.	228,722	June 15	703	193	17	1355
Arndt, Albert F. R., Detroit, Mich. Burglar-alarm.	235,118	Dec. 7	65	20	18	1292
Arndt, Daniel, assignor to himself and J. Ballhouse, Cleveland, Ohio. Lamp.	235,926	Dec. 28	1087	300	18	1485
Arnett, John, Springfield, Ohio. Exercising-machine.	226,438	Apr. 13	340	97	17	816
Arno, Oliver H., Wilmington, Mass. Mechanical musical instrument.	227,714	May 18	733	206	17	1118
Arno, Oliver H., Wilmington, assignor to American Automatic Organ Company, Boston, Mass. Mechanical musical instrument.	231,978	Sept. 7	131	33	18	545
Arno, Oliver H., Wilmington, Mass., assignor to J. Morgan, Brooklyn, N. Y. Mechanical musical instrument.	232,165	Sept. 14	343	96, 97	18	528
Arno, Oliver H., Wilmington, assignor to American Automatic Organ Company, Boston, Mass. Mechanical musical instrument.	233,721	Oct. 26	1156	321	18	954
Arnold, Adney T., Fitchburg, Mass. Friction-pulley.	233,181	Oct. 12	477	131	18	823
Arnold, Ann L., Providence, R. I. Fumigating compound.	235,487	Dec. 14	531	153	18	1378
Arnold, Charles B., Glencoe, Ky. Hand corn-planter.	229,300	June 29	1377	378	17	1467

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Arnold, Elijah, Olneyville, R. I. Loom for weaving tubular fabrics.....	231,743	Aug. 31	1336	376	18	488
Arnold, Elisha W., <i>et al.</i> (See Bidwell, Martin A., assignor.)						
Arnold, Fred E., Chicago, Ill. Washing-machine.....	223,015	May 25	1097	382	17	1186
Arnold, Fred E., Chicago, Ill. Permutation-lock.....	232,914	Oct. 5	146	39	18	762
Arnold, George M., assignor to himself and E. C. Miles, New York, N. Y. Device for administering medicine, &c.....	231,747	Aug. 31	1335	375	18	488
Arnold, John D. (See Van Houser, Henry, assignor.)						
Arnold, John F., administrator. (See Fulton, William H.)						
Arnold, Llewellen W., Chicago, Ill. Leaf-cutter for check-books.....	230,602	Aug. 3	5	1	18	248
Arnold, Louis. (See Kobler and Arnold.)						
Arnold, Rhodes, Waltham, Mass. Nose-piece for bridles.....	226,954	Apr. 27	967	269	17	938
Arnold, Rhodes, Waltham, Mass. Bridle.....	229,792	July 6	324	90	18	55
Arnold, Thomas, Des Moines, Iowa. Hog-cholera compound.....	223,429	Jan. 13	275		17	63
Arnold, Uriah K. (See Richmann, Henry, assignor.)						
Arnold, William B., North Abington, Mass. Machinery for rasping pegs.....	225,504	Mar. 16	622	181	17	584
Arnold, William T., Milner, Ga. Cotton-planter.....	233,457	Oct. 19	835	231	18	891
Arnoldi, John R., Ottawa, Ontario, Canada. Electrical alarm attachment for pressure-gages.....	234,902	Nov. 30	1355	364	18	1240
Arnot, Alexander. (See Swartz and Arnot.)						
Arntz, Adolph, Muskegon, Mich. Expansive reaming-bit.....	225,265	Mar. 9	327	96	17	526
Arrault, Jules A. (See Schmerber and Arrault.)						
Arrault, Jules A., New York, N. Y., and J. and C. Schmerber, Paterson, N. J. Manufacturing nitro-derivatives from cellulose, &c.....	230,216	July 20	833		18	153
Arrouquier, William, and T. Barrett, Worcester, Mass. Forming hard-finish on plastering.....	228,587	June 8	520		17	1317
Arter, Francis G., and J. C. Blocher, Lima, Ohio. Car-coupling.....	226,955	Apr. 27	968	269	17	938
Arthur, Charles M., Ansonia, assignor of one-half to S. H. Lessey, Birmingham, Conn. Paper-box.....	234,221	Nov. 9	490	134	18	1076
Artimini, Filippo, Florence, Italy. Compound for preserving meat.....	223,016	May 25	1097		17	1186
Aschenauer, George, Sacramento, Cal. Vehicle-spring.....	227,090	May 4	1	1	17	979
Ash, William F., Osage Mission, Kans. Rail-joint.....	225,266	Mar. 9	328	96	17	526
Ashald, Amos C., Garrettsville, Ohio. Clothes-pin.....	232,915	Oct. 5	147	39	18	762
Ashbourne, Alexander P., Boston, Mass. Refining cocoanut-oil.....	230,518	July 27	1222		18	222
Ashcroft, Edward H., Lynn, Mass. Locomotive-boiler.....	235,400	Dec. 14	419	118	18	1359
Ashcroft, Edward H., Lynn, Mass. Covering for steam-pipes.....	235,846	Dec. 28	988	274	18	1469
Ashcroft, John, assignor to S. J. Ashcroft, Brooklyn, N. Y. Steam cooking utensil.....	223,267	Jan. 6	72	18	17	15
Ashcroft, John, assignor to S. J. Ashcroft, Brooklyn, N. Y. Steam-stove.....	224,625	Feb. 17	762	216	17	358
Ashcroft, John, assignor to S. J. Ashcroft, Brooklyn, N. Y. Steam cooking apparatus.....	225,317	Mar. 9	405	118	17	537
Ashcroft, Sarah J. (See Ashcroft, John, assignor.)						
Ash, William F., New York, N. Y. Accessory for forming photographic backgrounds.....	228,295	June 1	164	45	17	1253
Asher, Daniel E., Gosport, Ind. Grain-drill.....	231,749	Aug. 31	1337	{ 376 } { 377 }	{ 18 }	489
Ashford, John. (See Ashford, Thomas B., assignor.)						
Ashford, Thomas B., assignor to J. Ashford, Clinton, N. C. Grazing-post.....	223,872	Jan. 27	820	219	17	170
Ashley, Lewis C., assignor to himself and C. H. Wilcox, Detroit, Mich. Windmill.....	230,988	Aug. 10	460	131	18	328
Ashlock, Richard A. H., assignor of one-half interest to J. S. Fee, Rockport, Ind. Shingling-scaffold.....	232,324	Sept. 21	546	151	18	629
Ashworth, Elijah. (See Ashworth, George and E.)						
Ashworth, George and E., Manchester, Great Britain. Apparatus for making wire card-teeth.....	226,262	Apr. 6	130	37	17	769
Askew, Charles, Madison, Wis. Machine for grinding mower and reaper knives.....	233,182	Oct. 12	478	131	18	824
Asper, Benjamin F., <i>et al.</i> (See Magill, Robert, assignor.)						
Aspinwall, John A., and C. M. Perry, New Utrecht, N. Y., assignors, by mesne assignments, to G. S. Sheffield & Co. Velocipede. (Reissue).....	9,348	Aug. 24	1195	334	18	460
Aspinwall, Lewis A., Albany, N. Y. Potato-digger.....	224,123	Feb. 3	176	50	17	232
Aspinwall, Lewis A., Loudonville, N. Y. Potato-planter.....	235,401	Dec. 14	420	118	18	1360
Aston, George L., and A. Hames, Birmingham, England. Machine for the manufacture of buttons.....	228,017	May 25	1098	312	17	1186
Aston, George L., and A. Hames, Birmingham, county of Warwick, England. Machine for manufacturing buttons.....	234,938	Nov. 30	1395	375	18	1247
Atherton, Robert, assignor, by mesne assignments, of part interest to W. Haguo and H. Ridgway, Paterson, N. J. Steam flue-cleaner. (Reissue).....	9,136	Mar. 30	1403	395	17	735
Atkins, Elias C. (See Armstrong, Atkins, and Brown.)						
Atkins, Guy D., Erie, Pa. Device for exhibiting shoes.....	235,402	Dec. 14	422	118	18	1360
Atkinson, Alexander, Winterset, Iowa. Washing-machine.....	231,750	Aug. 31	1339	377	18	489
Atkinson, Francis P., New York, N. Y. Folding table.....	231,252	Aug. 17	772	216	18	385
Atkinson, James W., assignor to Deere & Mansur Company, Moline, Ill. Corn-planter.....	225,318	Mar. 9	407	118	17	537
Atkinson, John, New York, N. Y. Rotary rock-drill.....	229,074	June 22	1122	305	17	1423
Atkinson, Mahlon B., Georgetown, assignor of one-half to D. Smith, Washington, D. C. Washing-machine.....	234,107	Nov. 2	336	92	18	1042
Atlantic Refining Company <i>et al.</i> (See Perkins, George H., assignor.) (Reissue.)						
Atterbury, James S. (See Atterbury, Thomas B., assignor.)						
Atterbury, James S., <i>et al.</i> (See Hammesfahr, Hermann, assignor.)						
Atterbury, Thomas B., <i>et al.</i> (See Hammesfahr, Hermann, assignor.)						
Atterbury, Thomas B., assignor of one-half interest to J. S. Atterbury, Pittsburg, Pa. Glass-furnace.....	228,296	June 1	164	46	17	1253
Attrce, Gregory C., London, England. Scarf.....	231,889	Sept. 7	13	2, 3	18	526
Attridge, Richard. (See Schellert, Charles R., assignor.)						
Attrill, Henry Y., and W. Farmer, New York, N. Y.; said Farmer assignor to said Attrill. Process and apparatus for manufacturing gas for heating and illuminating purposes.....	224,266	Feb. 10	338	97, 98	17	279
Attrill, Henry Y., and W. Farmer, New York, N. Y.; said Farmer assignor to said Attrill. Apparatus for the manufacture of gas.....	224,320	Feb. 10	403	{ 114 } { 115 }	{ 17 }	289
Atwater, Arthur J., <i>et al.</i> (See Atwater, John B., assignor.)						
Atwater, John B., Geneva, Ill. Pendulum-scale.....	235,663	Dec. 21	775	212	18	1421
Atwater, John B., Geneva, assignor to A. J. Atwater and A. G. Coleman, Chicago, Ill. Elevator.....	235,664	Dec. 21	746	212	18	1421
Atwood, Eugene. (See Atwood, John E. and E.)						
Atwood, James B. (See Johnson, Alonzo, assignor.)						
Atwood, James B., Three Rivers, assignor to J. W. Labaree, Springfield, Mass. Lock-nut.....	226,263	Apr. 6	131	37	17	769
Atwood, John E. and E., Stonington, Conn. Machine for doubling, &c., strands of fibrous material.....	227,198	May 4	130	37	17	999
Atwood, Kimball C., Buckfield, Me., assignor to Cutter Tower Company, Boston, Mass. Blacking-box holder.....	233,314	Oct. 19	663	183	18	863
Atwood, Lewis J., assignor to Plume & Atwood Manufacturing Company, Waterbury, Conn. Shoe-nail.....	234,222	Nov. 9	491	134	18	1077
Atwood, Montraville W., Clayton, N. Y. Center-board for boats.....	230,989	Aug. 10	461	131	18	328

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Atwood, William, Brooklyn, N. Y. Distillation of oils.....	226,151	Apr. 6	3	1	17	747
Atwood, William, Brooklyn, N. Y. Petroleum distillate for lubricating purposes.....	226,153	Apr. 6	6	.....	17	747
Anchincloss, William S., Philadelphia, Pa. Spool-support.....	233,131	Oct. 12	418	115	18	813
Anchincloss, William S., Philadelphia, Pa. Averaging-machine.....	235,723	Dec. 21	819	229	18	1432
Audoun, Joseph H., Baltimore, Md. Closing and sealing device.....	226,219	Apr. 6	83	22	17	760
Andoye, Pierre, Bordeaux, France. Shoe-blackening machine.....	228,018	May 25	1099	313	17	1187
Andoye, Pierre P., Paris, France. Machine for blacking and polishing boots and shoes.....	228,297	June 1	166	46	17	1253
Angspurger, John, Trenton, Ohio. Drag-saw.....	226,590	Apr. 20	537	150	17	858
Angspurger, John, Trenton, Ohio. Drag-saw.....	233,907	Nov. 2	89	23	18	1001
Ault, Alexander. (See Simpson, Josiah M., assignor.)						
Aultman & Co., C. (See Hawk and Miller, assignors.)						
Aultman & Co., C. (See Miller, Cassius M., assignor.)						
Aultman & Taylor Company. (See Brown, Huntington, assignor.)						
Aultman & Taylor Company. (See Cox, Joshua H., assignor.)						
Aultman & Taylor Company. (See Kissane, Persifer T., assignor.)						
Aultman & Taylor Company. (See Thornton, John T., assignor.) (Reissue.)						
Aulwes, Henry. (See Strub and Stoeffler, assignors.)						
Auringer, G. F., et al. (See Reynolds, Hiram, assignor.)						
Austen, Peter T., New Brunswick, N. J. Preparing an aqueous bleaching solution of soda or potassa.....	223,463	Jan. 13	315	.....	17	69
Austen, Thomas G., Oswego, N. Y. Bottle-stopper.....	230,730	Aug. 3	152	45	18	271
Austin, George W., Manchester, N. H. Machine for planing blind-slats.....	231,389	Aug. 24	920	{ 259 } 260	18	417
Austin, Henry K., Reading, Mass. File-holder.....	231,890	Sept. 7	15	3	18	526
Anstin, James. (See Raffinetti, Austin, and Gandolfo.)						
Anstin, James A., assignor to himself and S. I. Knight, New York, N. Y. File and binder.....	224,124	Feb. 3	178	51	17	233
Anstin, James A., assignor to himself and S. I. Knight, New York, N. Y. Blotter.....	233,910	Nov. 2	94	25	18	1002
Austin, John O., Bonham, Tex. Device for sheltering animals.....	235,614	Dec. 21	693	197	18	1411
Anstin, Joseph G., Chicago, Ill. Hoisting-machine.....	224,322	Feb. 10	406	115	17	290
Austin, Julius, Wakeman, Ohio. Wind-wheel.....	231,253	Aug. 17	773	216	18	385
Austin, Martin V., et al. (See Daniels, Theodore T., assignor.)						
Austin, Phineas E., and B. W. Nichols, New Haven, Conn. Shuttle-carrier for sewing-machines.....	234,112	Nov. 9	337	99	18	1053
Austin, Richard G. S., Pine Bluff, Ark. Cotton-cultivator.....	228,853	June 15	866	236	17	1377
Anstin, Richard G. S., Pine Bluff, Ark. Hoe.....	232,916	Oct. 5	148	39	18	762
Austin, Thomas J., Belle Plain, Tex. Washing-machine.....	224,321	Feb. 10	405	115	17	290
Austin, W. F. (See Cowan, Norman, assignor.)						
Austin, William P., New York, N. Y. Sewer-trap.....	230,685	Aug. 3	106	30	18	263
Autenrieth, William, Cincinnati, Ohio. Aspirator.....	229,796	July 13	343	95	18	67
Anteurietti, William, Cincinnati, Ohio. Air-pump.....	234,516	Nov. 16	852	228	18	1145
Automatic Gas Lamp and Lighting Company of the City of New York. (See Wellington, Henry, assignor.)						
Aveling, Thomas, Rochester, England. Road-engine.....	228,588	June 8	520	139	17	1317
Averell, John D., New York, N. Y. Generator for producing carbureted water-gas.....	226,472	Apr. 13	376	107	17	821
Avery, Charles A. (See Holland, Charles A., assignor.)						
Avery, Charles E., assignor to L. M. Avery, Boston, Mass. Baking-powder.....	235,615	Dec. 21	694	.....	18	1411
Avery, Charles H. (See Everitt and Avery.) (Reissue.)						
Avery, Dexter, et al. (See Morgan, Hubert W., assignor.)						
Avery, Frances E., Metuchen, N. J. Oven grate or shelf.....	231,141	Aug. 17	632	179	18	363
Avery, Handy W., Brookfield, N. Y. Carriage-spring.....	225,093	Mar. 2	136	39	17	480
Avery, John P. (See Lane and Avery.)						
Avery, Lucinda M. (See Avery, Charles E., assignor.)						
Avery, Rush E., New York, N. Y. Folding cot.....	235,977	Dec. 28	1146	317	18	1495
Axford, Harris W., Chicago, Ill. Incubator.....	232,325	Sept. 21	547	151	18	629
Axford, William H. (See Barr and Axford.)						
Axtmann, John M., New York, N. Y. Transom-lifter.....	223,305	Jan. 6	120	30	17	22
Aycock, Joshua D., Deetsville, Ala. Car-coupling.....	225,040	Mar. 2	74	21	17	469
Ayers, John W., Bridgeport, Conn. Pocket-cutlery.....	228,163	June 1	3	1	17	1227
Ayerst, Charles L. (See Ingersoll and Ayerst.)						
Aylworth, George H., Brighton, Ill. Gate.....	226,695	Apr. 20	656	182	18	877
Ayres, G. Ralston, et al. (See Ayres, John C., assignor.)						
Ayres, G. Ralston, assignor to W., G. R., J. C., W. M., and L. H. Ayres, Philadelphia, Pa. Fly-net for horses.....	232,917	Oct. 5	148	39	18	762
Ayres, James, and A. C. Decker, Bushnell, Ill., assignors to Washburn & Moen Manufacturing Company, Worcester, Mass. Machine for barbing wire.....	235,331	Dec. 14	337	93	18	1345
Ayres, John C., et al. (See Ayres, G. Ralston, assignor.)						
Ayres, John C., assignor to himself, W., G. R., W. M., and L. H. Ayres, Philadelphia, Pa. Leather horse-net.....	228,019	May 25	1100	313	17	1187
Ayres, Lewis H., et al. (See Ayres, G. Ralston, assignor.)						
Ayres, Lewis H., et al. (See Ayres, John C., assignor.)						
Ayres, Parley J., Lindsay, Ontario, Canada. Adjustable top for vehicles.....	235,119	Dec. 7	66	20	18	1292
Ayres, Samuel, Worcester, Mass. Stove-pipe shelf.....	234,452	Nov. 16	780	209	18	1133
Ayres, William, et al. (See Ayres, G. Ralston, assignor.)						
Ayres, William, et al. (See Ayres, John C., assignor.)						
Ayres, W. Montgomery, et al. (See Ayres, G. Ralston, assignor.)						
Ayres, W. Montgomery, et al. (See Ayres, John C., assignor.)						
Baackes, John M. E., assignor to J-P Nail Company, Cleveland, Ohio. Die for pointing wire nails.....	231,254	Aug. 17	773	216	18	385
Baackes, John M. E., assignor to J-P Nail Company, Cleveland, Ohio. Nail-pointing die.....	231,255	Aug. 17	775	217	18	386
Babb, John L., Greenland, W. Va. Neck-yoke.....	229,938	July 13	501	139	18	91
Babb, Thomas N. (See Keisling and Babb.)						
Babbitt, Benjamin T., New York, N. Y. Mold for casting chilled rolls.....	232,227	Sept. 14	419	116	18	602
Babbitt, Benjamin T., New York, N. Y. Multiple mold for casting gun-barrels.....	232,228	Sept. 14	420	116	18	602
Babbitt, James H., Oak Forest, Pa. Vehicle-seat.....	226,956	Apr. 27	968	269	17	939
Babbitt, S. William, assignor to Wilcox Silver Plate Company, Meriden, Conn. Plate for butter-dishes.....	235,192	Dec. 7	156	44	18	1307
Babbott, William M., and D. Smith, New York, N. Y. Refrigerator-car.....	227,874	May 25	926	265	17	1161
Babcock, Charles A., Buffalo, N. Y. Fluting-machine.....	224,323	Feb. 10	407	116	17	290
Babcock, Charles A., Buffalo, N. Y. Combined sad-iron and fluting device.....	233,830	Nov. 2	2	1	18	987
Babcock, Franklin, Middletown, Conn., assignor of one-half interest to F. Babcock. Window spring-catch. (Reissue.).....	9,301	July 20	1036	293	18	185
Babcock, Frederick. (See Babcock, Franklin, assignor.) (Reissue)						
Babcock, George H., et al. (See Bennett, Edwin H., assignor.)						
Babcock, George H., Plainfield, N. J., and S. Wilcox, Brooklyn, N. Y. Fire-door for furnaces.....	224,626	Feb. 17	764	216	17	359

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Babcock, George H., Plainfield, N. J., S. Wilcox and N. W. Pratt, Brooklyn, N. Y., assignors to said Babcock and Wilcox. Steam-boiler.....	229,352	June 29	1446	368	17	1475
Babcock, Simeon, Manistee, Mich. Machine for sawing clapboards.....	232,326	Sept. 21	549	152	18	630
Babcock, Stephen E., <i>et al.</i> (See Burns, John, assignor.)						
Babcock, Stephen E., <i>et al.</i> (See Fitzhugh, Henry M., assignor.)						
Babcock, Stephen E., assignor of seventeen twenty-fourths interest to D. S. Dennison, J. B. Anthony, and T. E. Haslehurst, Troy, N. Y. Junction service-box.....	225,546	Mar. 16	672	196	17	592
Babcock, Stephen E., assignor of seventeen twenty-fourths interest to D. S. Dennison, J. B. Anthony, and T. E. Haslehurst, Troy, N. Y. Smoke-stack.....	230,217	July 20	833	235	18	153
Babcock, Stephen E., assignor of seventeen twenty-fourths interest to D. S. Dennison, J. B. Anthony, and T. E. Haslehurst, Troy, N. Y. Furnace for steam-boilers.....	230,218	July 20	835	236	18	153
Babcock, Stephen E., assignor of two-thirds interest to J. B. Anthony and T. E. Haslehurst, Troy, N. Y. Steam-radiator.....	230,219	July 20	836	236	18	153
Babcock, Stephen E., assignor of two-thirds interest to J. B. Anthony and T. E. Haslehurst, Troy, N. Y. Securing certain parts of subterranean pipes.....	233,183	Oct. 12	478	132	18	824
Bach, Jacques (See Kranich and Bach.)						
Bachelder, John, Napa, Cal. Wind-wheel.....	232,799	Oct. 5	4	1	18	739
Bacheller, E. Q., <i>et al.</i> (See Westgate, Joseph D., assignor.)						
Bachmann, George, Jr. (See Kolb and Osberghaus, assignors.)						
Backes, Michael, Wallingford, Conn. Toy pistol.....	226,473	Apr. 13	379	107	17	822
Backhaus, Frederick L., New Orleans, La. Odorless excavating apparatus.....	232,229	Sept. 14	421	117	18	602
Backus, Oscar J., San Francisco, Cal. Tin vessel.....	225,204	Mar. 9	263	75	17	515
Backus, Quimby S., New York, N. Y. Bit-stock.....	233,464	Oct. 19	841	232	18	892
Backus, Quimby S., Winchendon, Mass. Bit-stock.....	234,517	Nov. 16	854	228	18	1145
Bacon, Addison M., Pittsburg, Pa. Machine for grinding glassware.....	228,164	June 1	3	1, 2	17	1227
Bacon, Charles H., assignor of one-half interest to G. A. Walker, Boston, Mass. Water-meter.....	225,963	Mar. 30	1184	337	17	701
Bacon, Daniel H. (See Hanson, Freeman, assignor.)						
Bacon, Elmore C., Cleveland, Ohio. Lightning-rod coupling. (Reissue).....	9,145	Apr. 13	503	142	17	841
Bacon, George C., Lynn, Mass. Cuff-fastener.....	223,268	Jan. 6	73	18	17	15
Bacon, Robert A. (See Hart and Bacon.)						
Bacon, Steuben T., Boston, Mass. Tobacco-pipe.....	223,630	Jan. 20	525	141	17	113
Badger, Franklin O. (See Bliss and Badger.)						
Badger, Franklin O. (See Calkins and Badger.)						
Badger, George W., assignor to G. P. Cox, Malden, Mass. Boot-tree.....	224,067	Feb. 3	114	33	17	222
Badische Anilin and Soda Fabrik. (See Baeyer, Adolph, assignor.)						
Badische Anilin and Soda Fabrik. (See Caro, Heinrich, assignor.)						
Badische Anilin and Soda Fabrik. (See Caro, Heinrich, assignor.) (Reissue.)						
Badische Anilin and Soda Fabrik. (See Köhler, Friedrich, assignor.)						
Baeyer, Adolf, Munich, Germany. Manufacture of artificial indigo.....	227,470	May 11	447		17	1062
Baeyer, Adolf, Munich, Bavaria, Germany. Manufacture of artificial indigo-blue.....	228,300	June 1	169		17	1253
Baeyer, Adolf, Munich, Germany. Manufacture of artificial indigo.....	233,458	Oct. 19	836		18	891
Baeyer, Adolf, Munich, Germany. Producing artificial indigo.....	233,459	Oct. 19	837		18	891
Baeyer, Adolf, Munich, Germany. Production of artificial indigo.....	233,460	Oct. 19	838		18	891
Baeyer, Adolph, Munich, Bavaria, assignor to Badische Anilin and Soda Fabrik, Baden, Germany. Manufacture of artificial indigo.....	235,193	Dec. 7	157		18	1307
Baeyer, Adolph, Munich, Bavaria, assignor to Badische Anilin and Soda Fabrik, Baden, Germany. Manufacture of dye-stuff or coloring-matter.....	235,488	Dec. 14	532		18	1378
Bagaley, Ralph. (See Burnap, Charles F., assignor.)						
Bagaley, Ralph. (See Randolph, Ira F., assignor.) (Reissue.)						
Bailey, Alvin R., and J. B. Glass, East Somerville, Mass. Packing for piston-rods.....	230,220	July 20	837	236	18	153
Bailey, Charles A., Cobalt, Conn. Toy shooting-gallery.....	229,656	July 6	164	45	18	33
Bailey, Charles A., Cobalt, Conn. Toy money-bank.....	234,518	Nov. 16	855	228	18	1145
Bailey, Daniel S., Chicago, Ill. Car-coupling.....	232,588	Sept. 28	859	239	18	689
Bailey, David, <i>et al.</i> (See Mahan and Owen, assignors.)						
Bailey, Davis W., Chelsea, Mass. Concrete pavement. (Reissue.).....	9,207	May 18	917	262	17	1149
Bailey, Davis W., assignor of one-half interest to J. McLain, Washington, D. C. Process of and apparatus for reducing asphaltum to a liquid.....	227,945	May 25	1004	288 289	17	1173
Bailey, Ellene A., St. Charles, Mo. Boot.....	233,461	Oct. 19	838	231	18	891
Bailey, Gilbert L., Portland, Me. Curtain-fixture.....	233,961	Nov. 2	165	42	18	1013
Bailey, Hamilton, Harrisburg, Pa. Dumping-wagon. (Reissue.).....	9,067	Feb. 10	605	176	17	323
Bailey, John C., Jersey City, N. J., assignor of one-half interest to W. A. Thorp, Philadelphia, Pa. Liniment.....	223,306	Jan. 6	121		17	22
Bailey, John H., assignor to Deere, Mansur & Co., St. Louis, Mo. Cultivator.....	232,871	Oct. 5	96	26	18	754
Bailey, John M., Woonsocket, R. I. Pruning implement.....	234,939	Nov. 30	1397	376	18	1247
Bailey, John W., Green Lake, Wis. Swarm-catcher.....	228,299	June 1	168	47	17	1254
Bailey, Joseph, Lavender Hill, England. Fare-register.....	231,952	Sept. 7	88	23	18	538
Bailey, Joseph R. (See Brackett and Bailey.)						
Bailey, Josiah P. (See Cunningham and Bailey.)						
Bailey, Lester J., and L. H. Thompson, McPherson, Kans. Snap-hook and rope-clasp.....	231,751	Aug. 31	1340	377	18	489
Bailey, Samuel L., and C. A. Weage, Chicago, Ill.; said Weage, assignor, by mesne assignment, to Metallic Heel Stiffening Company, New Haven, Conn. Counter-stay for boots and shoes.....	231,699	Aug. 31	1276	359	18	479
Bailey, Samuel R., Boston, Mass. Wood-bending machine.....	223,269	Jan. 6	74	19	17	15
Bailey, Selden A., Woonsocket, R. I. Vehicle-spring.....	224,627	Feb. 17	764	216	17	359
Bailey, Walter M., New York, N. Y. Hydraulic elevator.....	223,464	Jan. 13	316	84	17	69
Bailey, William, Harrisonville, Mo. Grain-bin.....	235,724	Dec. 21	821	230	18	1433
Bailey, William H., assignor to J. C. Hall, Providence, R. I. Temporary binder.....	227,715	May 18	735	206	17	1118
Bainbridge, David, Philadelphia, Pa. Button-fastener.....	228,298	June 1	167	47	17	1253
Baines, Edward, Oakville, Ontario, Canada. Feed-water heater.....	234,903	Nov. 30	1357	364	18	1240
Baird, Alva, Malcolm, Iowa. Threshold-strip.....	226,823	Apr. 27	809	226	17	913
Baird, George W., U. S. Navy. Fresh-water-distilling apparatus.....	233,184	Oct. 12	479	132	18	824
Baird, John V., Springfield, Ohio. Gate.....	235,429	Dec. 14	532	153	18	1378
Baird, J. Oscar, Vienna Cross Roads, Ohio. Windmill.....	224,628	Feb. 17	766	216 217	17	359
Baizley, John. (See Metzler, William, assignor.)						
Baker, Albert R., Indianapolis, Ind. Calendar.....	229,578	July 6	84	22	18	21
Baker, Allen S., Evansville, Wis. Pump.....	232,103	Sept. 14	276	77	18	577
Baker, Allen S., Evansville, Wis. Mechanical movement.....	232,104	Sept. 14	277	77	18	577
Baker, Allen S., Evansville, Wis. Windmill.....	235,194	Dec. 7	158	44, 45	18	1308
Baker, Augustus H., Hartford, Conn. Railway-switch signal.....	229,075	June 22	1123	305	17	1423
Baker, Benjamin, Montreal, Quebec, Canada. Combined swing and rocker.....	235,062	Dec. 7	3	1	18	1281
Baker, Benjamin C. (See Butler, Manlove, assignor.)						
Baker, Caleb J. (See Murray and Baker.)						
Baker, Cyrus M., Bingham, Me. Lumber-driver's calk.....	230,686	Aug. 3	106	30	18	263



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Baker, Delos R., Cincinnati, Ohio. Signal for water-closets.....	224,125	Feb. 3	173	51	17	233
Baker, Delos R., Cincinnati, Ohio. Signal for water-closets.....	227,403	May 11	363	109	17	1049
Baker, Francis M., South Bend, Ind. Hatchway safety-gate.....	229,657	July 6	164	45	18	33
Baker, Frederick A., Brooklyn, N. Y. Fire-escape ladder.....	230,459	July 27	1162	327	18	212
Baker, George C., Des Moines, Iowa. Fence-barb and barbed-wire cable.....	233,832	Nov. 2	5	2	18	937
Baker, George W., Erie, Pa. Device for oiling steam-valves.....	225,912	Mar. 30	1103	316	17	639
Baker, George W., Erie, Pa. Lubricator for steam-valves of locomotives.....	227,199	May 4	130	38	17	999
Baker, George W., Cleveland, Ohio. Cloth folding and cutting machine.....	224,571	Feb. 17	697	199	17	342
Baker, George W., assignor to White Sewing Machine Company, Cleveland, Ohio. Take-up for sewing-machines.....	224,572	Feb. 17	698	199	17	342
Baker, George W., assignor to White Sewing Machine Company, Cleveland, Ohio. Combined piping and hemming attachment for sewing-machines.....	226,382	Apr. 13	263	80	17	805
Baker, George W., assignor to White Sewing Machine Company, Cleveland, Ohio. Attachment holder and adjuster for sewing-machines.....	233,911	Nov. 2	96	25	18	1002
Baker, George W., Chicago, Ill. Automatic vacuum-lubricator.....	229,025	June 22	1068	291 292	17	1415
Baker, George W., Chicago, Ill. Automatic lubricating apparatus.....	233,391	Oct. 19	753	206 207	18	878
Baker, George W., Chicago, Ill. Automatic lubricating apparatus.....	234,383	Nov. 16	699	187 188	18	1119
Baker, Harry R., Baltimore, Md. Pocket cigarette-machine.....	229,076	June 22	1124	305 306	17	1423
Baker, Henry, Catskill, N. Y. Label-holder.....	226,474	Apr. 13	379	108	17	822
Baker, Henry F., assignor of one-half to J. N. Calvert, Dillsborough, Ind. Seed-planter.....	234,650	Nov. 23	1043	281	18	1183
Baker, Henry M., et al. (See Hunter, George W., assignor.)						
Baker, Henry N., Binghamton, N. Y. Windmill.....	233,392	Oct. 19	756	207	18	878
Baker, Horace R., Fiskeville, R. I. Pump.....	223,631	Jan. 20	526	142	17	113
Baker, Jefferson B., assignor of two-thirds to J. B. Randal and G. E. McDougall, New Almaden, Cal. Pipe.....	235,063	Dec. 7	4	1	18	1281
Baker, John C., Mechanicsburg, Ohio. Combined grain-drill and cultivator.....	234,845	Nov. 30	1288	346	18	1229
Baker, John G., Philadelphia, Pa., assignor to Enterprise Manufacturing Company of Pennsylvania. Screw-tapping machine.....	232,918	Oct. 5	149	40	18	762
Baker, John S., Baltimore, Md., assignor to American Patent Underwear Company, Exeter, N. H. Chemise.....	233,462	Oct. 19	839	231	18	891
Baker, J. Warren, et al. (See Thompson, William M., Jr., assignor.)						
Baker, Loring J., Boston, Mass. Rotary engine.....	223,978	Feb. 3	6	2, 3	17	203
Baker, Philander, Boston, Mass. Elevator.....	231,891	Sept. 7	16	3	18	527
Baker, Seth W., Providence, R. I. Woven endless belt.....	229,939	July 13	501	139	18	91
Baker, Thomas M., Washington, D. C. Medicine-spoon.....	233,185	Oct. 12	480	132	18	824
Baker, Wallace L., et al. (See Knowles, Daniel M., assignor.) (Reissue.)						
Baker, Walter, Ilion, N. Y. Hub-attaching device.....	229,353	June 29	1447	398	17	1476
Baker, William H., Syracuse, N. Y. Lock for fire-arms.....	228,020	May 25	1101	313	17	1187
Baker, William H., Syracuse, N. Y. Breech-loading fire-arm.....	228,165	June 1	5	2	17	1228
Baker, William S. G., Baltimore County, Md. Portable commode.....	232,574	Jan. 13	451	122	17	91
Baker, William S. G., Baltimore, Md. Casting car-wheels.....	230,853	Aug. 10	311	90	18	305
Bakewell, Thomas, Pittsburg, Pa. Method of and apparatus for straightening saws and steel plates.....	233,463	Oct. 19	840	231	18	891
Balch, Frederick A., Hingham, Wis. Cockle-separator.....	227,471	May 11	448	123 129	17	1062
Baldwin, Cadwell A., assignor of one-half interest to S. A. Hendee and S. M. Burtis, Bushnell, Ill. Combined elevator, carrier, and dump.....	232,433	Sept. 21	682	188	18	651
Baldwin, Charles J., Colmar, Pa. Lifting-jack.....	235,404	Dec. 14	423	119	18	1360
Baldwin, Cyrus G., Ripon, Wis. Lawn-mower attachment.....	228,854	June 15	867	236	17	1377
Baldwin, George, South Manchester, Conn. Curtain-fixture.....	227,200	May 4	131	38	17	999
Baldwin, James P., Lockport, N. Y. Ventilator for dwellings, &c.....	233,962	Nov. 2	167	42	18	1014
Baldwin, Judson A., Shelburne, Vt. Combined extension-shelf and portable door for closing openings in refrigerators and milk-bureaus.....	231,643	Aug. 31	1216	341	18	470
Baldwin, Luther C., Manchester, N. H. Heat-regulator.....	227,201	May 4	132	38	17	999
Baldwin, Mary H., Hamlin, Tex. Skirt-ironing board.....	235,403	Dec. 14	423	119	18	1360
Baldwin, Ozzro J., Rouseville, assignor to himself and P. E. Appleby, Bradford, Pa. Vehicle-wheel.....	223,307	Jan. 6	121	31	17	22
Baldwin, Stephen W., Yonkers, N. Y. Working railway-rail ends into billets, &c.....	227,946	May 25	1006	289	17	1173
Baldwin, Thomas B., Troy, Pa. Parlor cooking-stove.....	225,783	Mar. 23	958	276	17	650
Baldwin, William H., Ottawa, Ontario, Canada. Churn.....	230,687	Aug. 3	107	31	18	264
Bale, Thomas H., Petersburg, Ill. Millstone-dress.....	233,132	Oct. 12	420	116	18	813
Bales, Abram, et al. (See Howell, Harrison, assignor.)						
Bales, George E., Walla Walla, Wash. Ter. Snap-hook and buckle.....	234,738	Nov. 23	1146	308	18	1260
Bales, Isaac, Hicksville, Ohio. Combined house ventilator and register.....	232,166	Sept. 14	346	97	18	589
Balkan, Allan. (See Sellman, Martin, and Balkan.)						
Ball, Albert, Claremont, N. H. Circular loom.....	223,589	June 8	522	130 140	17	1312
Ball, Albert, assignor to Sullivan Machine Company, Claremont, N. H. Machine for grinding spindles.....	223,590	June 8	521	140	17	1318
Ball, Albert, Claremont, N. H. Cop-tube.....	235,196	Dec. 7	161	46	18	1309
Ball, Charles E. (See Ball, R. Edward and C. E.)						
Ball, Charles E., Philadelphia, Pa. Amalgamator.....	227,716	May 18	736	206	17	1118
Ball, Charles E., Philadelphia, Pa. Amalgamator.....	227,717	May 18	738	207	17	1118
Ball, Charles E., Philadelphia, Pa., and R. E. Ball, Jamaica, N. Y. Amalgamator.....	227,718	May 18	739	207	17	1119
Ball, Charles E., Philadelphia, Pa. Combined ore concentrator and amalgamator.....	229,077	June 22	1126	306	17	1423
Ball, Charles E., Philadelphia, Pa. Ore-amalgamator.....	229,078	June 22	1128	306	17	1423
Ball, Charles E., Philadelphia, Pa., assignor to C. A. Cheever, trustee, New York, N. Y. Electro-magnetic rock-drill.....	235,195	Dec. 7	160	45	18	1308
Ball, Charles P., Danville, Ky. Process and tool for driving and clinching nails.....	231,979	Sept. 7	133	33	18	545
Ball, Charles W., Macon, Ill. Vehicle-wheel.....	230,990	Aug. 10	462	132	18	329
Ball, Charles W. W. (See Walker and Ball.)						
Ball, Clinton M., Watervliet, assignor of two-thirds to J. B. Tibbits, Troy, N. Y. System of electrical lighting-circuits.....	233,831	Nov. 2	3	1, 2	18	987
Ball, Frank H., Erie, Pa. Valve-gear for steam-engines.....	229,797	July 13	344	95, 96	18	67
Ball, John A., Oakland, Cal. Attachment for dredging-machines.....	225,205	Mar. 9	263	75	17	515
Ball, R. Edward. (See Ball Charles E. and R. E.)						
Ball, R. Edward, Jamaica, N. Y., and C. E. Ball, Philadelphia, Pa. Ore-concentrator.....	229,079	June 22	1130	307	17	1424
Ball & Son, T. K. (See Jones, Thomas F., assignor.)						
Ball, Thomas K. and W. H., Maysville, Ky. Mechanical-power screw for tobacco and other presses.....	232,872	Oct. 5	97	26	18	754

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Ball, William H. (See Ball, Thomas K. and W. H.)						
Ballantine, Alexander T., assignor of one-half interest to R. A. Ripley, Portland, Me. Compressor for ice-making apparatus.	229,940	July 13	503	139	18	91
Ballantine, Alexander T., assignor of one-half interest to R. A. Ripley, Portland, Me. Congealer for ice-making apparatus.	229,941	July 13	504	140	18	92
Ballantine, Alexander T., assignor of one-half interest to R. A. Ripley, Portland, Me. Condenser for ice-making apparatus.	229,942	July 13	505	140	18	92
Ballard, Charles J. R., Watertown, N. Y. Car-coupling.	228,855	June 15	868	237	17	1378
Ballhouse, Joseph. (See Arndt, Daniel, assignor.)						
Balliet, Henry, Olean, N. Y. Pump-rod adjuster for oil-wells.	229,354	June 29	1448	399	17	1476
Ballatschano, Constantiu, <i>et al.</i> (See Trenk, Heinrich, assignor.)						
Ballatschano, Jean, <i>et al.</i> (See Trenk, Heinrich, assignor.)						
Ballentine, David W. (See Browne, Ballentine, and Turner.)						
Ballou, Barton A., Providence, R. I. Lobe attachment for ear-drops.	229,080	June 22	1131	307	17	1424
Ballou, Walter, North Attleborough, Mass. Bracelet.	233,186	Oct. 12	481	132	18	824
Ballsmith, Frederick C., Attica, N. Y. Butter cutter and marker.	230,392	July 27	1078	303	18	198
Balmer, Thomas, Chicago, Ill., and L. Lottier, Richmond, Va. Tobacco-box.	224,508	Feb. 17	619	179	17	335
Balmer, Thomas, Chicago, Ill. Tobacco-box.	226,154	Apr. 6	8	2	17	747
Baltz, Henry W., Sr., assignor of one-half interest to J. C. Cline, Philadelphia, Pa. Turbine water-wheel.	223,979	Feb. 3	7	3	17	204
Bancroft, George D., Boston, Mass. Electric-lighting device.	235,978	Dec. 28	1147	318	18	1495
Bancroft, George D., Boston, Mass. Electric gas-lighting apparatus.	235,979	Dec. 28	1148	319	18	1495
Bancroft, John S., New York, N. Y. Cord-edge for hat-brims.	233,912	Nov. 2	97	26	18	1003
Bancroft, John S., New York, N. Y. Ventilating straw hats.	234,846	Nov. 30	1290	346	18	1229
Bancroft, J. Sellers. (See Sellers and Bancroft.)						
Bancroft, J. Sellers. (See Sellers and Bancroft.) (Reissue.)						
Bancroft, J. Sellers, assignor to W. Sellers, Philadelphia, Pa. Injector for feeding boilers.	224,762	Feb. 24	933	267	17	403
Bandelow, Gustav, <i>et al.</i> (See Dieterle, Henry E., assignor.)						
Bangs, Charles A., and G. H. Pierce, Richmond, Quebec, Canada, assignors of one-third interest to C. E. Butters, Boston, Mass. Can forming and soldering machine.	224,763	Feb. 24	935	267	17	403
Bangs, David E., Medford, Mass. Petroleum-oil burner.	227,472	May 11	449	129	17	1062
Bangs, David E., Medford, Mass. Vapor-burner for stoves.	229,355	June 29	1450	399	17	1476
Banister, George, Columbus, Ohio. Machine for making garden-rakes.	226,898	Apr. 27	901	250	17	928
Banks, Charles M., Philadelphia, Pa. Button-hole attachment for sewing-machines.	223,694	Jan. 20	595	159	17	123
Banks, Charles M., Philadelphia, Pa. Sewing-machine.	225,784	Mar. 23	959	276	17	650
Banks, John, Oakfield township, Montcalm county, Mich. Vehicle-pole tip.	230,526	July 27	1224	345	18	222
Banks, Samuel. (See Haptonstall and Banks.)						
Banner, Marcns. (See Rotheubuecher John, assignor.)						
Bannerman, Daniel. (See Gage, Eli C., assignor.)						
Bannister, Alfred, Alameda, Cal. Street-pavement.	234,376	Nov. 9	664	181	18	1106
Bapterosses, Jean F., Paris, France. Machine for the manufacture of buttons, &c.	226,696	Apr. 20	657	183	17	877
Barber, D. Fletcher, Newton, Mass. Countersink.	230,603	Aug. 3	6	2	18	248
Barber, Henry R., assignor to Lambertville Manufacturing Company, Lambertville, N. J. Pump-valve.	231,522	Aug. 24	1063	299	18	439
Barber, Mary E. (See Menaar, Nicholas A., assignor.)						
Barber, Ohio C., Akron, Ohio. Shipping-package for matches.	225,041	Mar. 2	75	21	17	469
Barber, Philemon, Akron, Ohio. Harvester.	230,854	Aug. 10	311	91, 92	18	305
Barber, William F., Clay Centre, Kans. Child's chair.	225,548	Mar. 16	673	197	17	592
Barbier, Auguste, and F. Maloubier, Paris, France. Bracelet.	228,723	June 15	704	193	17	1355
Barbour, John. (See Barker and Barbour.)						
Barcellos, Daniel, Brooklyn, N. Y. Button-hole sewing-machine.	235,725	Dec. 21	822	230	18	1433
Barclay, James W., Aberdeen, and R. Sellar, Huntly, county of Aberdeen, Scotland. Combined plow and digger.	235,490	Dec. 14	533	154	18	1378
Barcus, Richard J., Monroe, Ky. Farm-wagon.	224,860	Feb. 24	1050	299	17	421
Barcus, William W. (See Armstrong, William, assignor.)						
Bard, James E., Sabula, Iowa. Oiling-can.	230,167	July 20	774	216	18	143
Bardwell, Henry G., Winton, Tex. Buckle.	230,221	July 20	837	236	18	153
Bardwell, John J., Detroit, Mich. Autographic printing.	223,873	Jan. 27	820		17	170
Barker, Alfred, Richfield Springs, N. Y. Clothes-wringer.	235,491	Dec. 14	535	154	18	1379
Barker, Asbury, and E. Anderson, Peekskill, N. Y. Exercising-machine.	223,800	June 15	805	220	17	1369
Barker, Charles W. (See Crane, Wm. J., assignor.)						
Barker, Edward P. (See Bevins, Barker, and Phillips.)						
Barker, Edwin W. (See Wallace, Hary, assignor.)						
Barker, George E., Waverly, N. Y. Umbrella-support.	230,521	July 27	1224	345	18	222
Barker, Howard H., and G. Edmonston, Washington, D. C. Alarm for telephone-lines.	225,321	Mar. 9	410	119	17	538
Barker, Howard H., and G. Edmonston, Washington, D. C. Cut-out for telephone-alarms.	232,665	Sept. 28	952	261	18	704
Barker, James, Camden, N. J. Device for operating the doffer-combs of carding-machines.	227,202	May 4	133	39	17	999
Barker, John F., San Francisco, Cal. Windmill.	223,303	Jan. 6	122	31	17	22
Barker, John F., Springfield, Mass. Gas-burner.	231,256	Aug. 17	776	217	18	386
Barker, John F., Springfield, Mass. Apparatus for mixing aeriform fluids.	234,904	Nov. 30	1358	365	18	1241
Barker, Joseph, assignor to himself and D. H. Belcher, Wellsborough, Pa. Hay-tedder.	231,980	Sept. 7	134	34	18	545
Barker, Joseph H., Cincinnati, Ohio. Door-spring.	221,377	Feb. 10	468	134	17	300
Barker, Philander M., assignor of one-half interest to D. F. Henry and R. A. Parker, Detroit, Mich. Double-acting pump.	230,751	Aug. 3	153	45	18	271
Barker, Volney, Portland, Me., and J. Barbour, Haverhill, Mass. Cheese-knife.	230,393	July 27	1079	303	18	198
Barker, William P. (See Harlow and Barker.)						
Barkheimer, Joseph H., assignor of three-fourths interest to G. Kinney, A. H. Chesnut, and W. L. C. Clark, Des Moines, Iowa. Screen-door.	225,680	Mar. 23	835	243	17	631
Barkley, Frank B., Cincinnati, Ohio. Harness-loop.	232,167	Sept. 14	347	97	18	589
Barkley, H. C., <i>et al.</i> (See Mearns, Andrew, assignor.)						
Barkley, James, Edray, W. Va., assignor to W. T. Crawford and W. Lally, Summerdean, Va. Flour-bolt.	229,579	July 6	85	23	18	21
Barkley, John L., assignor of one-half interest to J. E. Cantrill, Georgetown, Ky. Harness-loop press.	224,953	Mar. 2	3	1	17	457
Barkley, Thomas J., <i>et al.</i> (See Mearns, Andrew, assignor.)						
Barlow, James H., Sedalia, Mo. Harrow.	225,042	Mar. 2	76	21	17	469
Barley, James H., Sedalia, Mo. Harrow.	231,257	Aug. 17	777	217	18	386
Barley, James H., Sedalia, Mo. Horse-rake.	233,133	Oct. 12	421	116	18	814
Barlow, Ashbel P., St. Joseph, Mich., assignor to J. H. Swartwout. Saw-mill. (Reissue.)	9,122	Mar. 23	1090	311	17	673
Barlow, Elisha T., assignor to S. Barlow and H. M. Hitchcock, San Francisco, and F. W. Tompkins, Oakland, Cal. Car-coupling.	226,824	Apr. 27	809	226	17	912
Barlow, John, Butler Centre, Iowa. Hay rake and loader.	230,222	July 20	538	237	18	154
Barlow, John H., and I. Taylor, New Haven, Conn. Perforating-stamp.	225,043	Mar. 2	76	21	17	469

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Barlow, John H., assignor to Winchester Repeating Arms Company, New Haven, Conn. Cartridge-loading implement.....	229,301	June 29	1378	379	17	1467
Barlow, John H., assignor to Winchester Repeating Arms Company, New Haven, Conn. Machine for feeding cartridge-shells.....	233,062	Oct. 12	330	92	18	799
Barlow, Joseph L., Wilmington, N. C. Metal-lined wooden barrel.....	235,980	Dec. 28	1150	319	18	1496
Barlow, Samuel L. M. (See Lugo, Orazio, assignor.)						
Barlow, Samuel L. M. (See Rossetti, Francesco, assignor.)						
Barlow, Susan, <i>et al.</i> (See Barlow, Elisha T., assignor.)						
Barnard, Edward, Rome, N. Y. Quarter-boot for horses.....	225,547	Mar. 16	673	196	17	592
Barnard, Heman A. (See McManu and Barnard.)						
Barnard & Leas Manufacturing Company. (See Leas and Hanson, assignors.)						
Barnard, William S., Canton, assignor of one-half interest to W. A. Knowlton, Rockford, Ill.; said Knowlton assignor of one-half interest to said Barnard. Corn-harvester.....	223,213	Jan. 6	3	1	17	3
Barnes, Alden, Bloomington, Ill. Machine for forming interlocking eyes.....	230,604	Aug. 3	7	2	18	248
Barnes, Amos, assignor to himself, J. Barnes, and J. W. Bird, Pontiac, Mich. Pitman-connection.....	232,921	Oct. 5	154	41	18	763
Barnes, Charles, Dayton, Ky. Automatic fire-extinguisher.....	233,293	Oct. 19	757	208	18	878
Barnes, Charles E., Boston, Mass., assignor, by mesne assignments, to United States Cord Company. Cord-making machine.....	232,920	Oct. 5	151	40, 41	18	763
Barnes, Charles T., Chicago, Ill. Smoke and gas consumer for stoves.....	231,142	Aug. 17	633	190	18	363
Barnes, Charles W. (See Beebe, Dickey, and Barnes.)						
Barnes, Charles W., Randolph township, Montgomery county, Ohio. Gato.....	230,165	July 20	773	{ 215 216 }	18	143
Barnes, Charles W., Randolph township, (Clayton P. O.), Montgomery county, Ohio. Trace-fastening.....	230,166	July 20	774	216	18	143
Barnes, Emery, Mount Pleasant, Mich. Lifting and force pump.....	224,509	Feb. 17	619	179	17	336
Barnes, George R. (See Sheffield and Barnes.)						
Barnes, Harry W., Bristol, Conn. Lock-work attachment for clocks.....	234,941	Nov. 30	1398	376	18	1247
Barnes, Horace H., Dryden, Mich. Portable elevator.....	228,591	June 8	526	140	17	1318
Barnes, Howard C. (See Crocker, James A., assignor.)						
Barnes, James, <i>et al.</i> (See Barnes, Amos, assignor.)						
Barnes, John. (See Barnes, William F. and J.)						
Barnes, John A., Laclede, Mo. Neck-yoke adjuster for harness.....	223,575	Jan. 13	452	122	17	91
Barnes, John H., assignor of one-half interest to D. Gatto, Baltimore, Md. Harbor-ballast for ships.....	232,435	Sept. 21	685	189	18	652
Barnes, John M., Wacousta, assignor of one-half interest to W. S. Palmer, Lansing, Mich. Windmill.....	223,465	Jan. 13	318	84, 85	17	69
Barnes, Jonathan, <i>et al.</i> (See Riley, Wilson, assignor.)						
Barnes, Norman A., <i>et al.</i> (See Pearce, William, assignor.)						
Barnes, Stephen, New Haven, Conn. Vibrating propeller.....	226,957	Apr. 27	969	{ 269 270 }	17	939
Barnes, Wesley W., New York, assignor of one-half interest to J. F. Robinson, Middletown, N. Y. Letter-box.....	231,523	Aug. 24	1065	299	18	440
Barnes, William F. and J., Rockford, Ill. Metal-turning lathe.....	232,436	Sept. 21	686	189	18	652
Barnett, John, New York, and C. T. Hurlburt, Brooklyn, N. Y. Case for medicines.....	225,320	Mar. 9	409	119	17	528
Barnett, John, and C. F. Hurlburt, Brooklyn, N. Y. Case for medicines.....	227,719	May 18	741	207	17	1119
Barnett, Samuel W. (See Harris, Lee O., assignor.)						
Barney, Everett H., Springfield, Mass. Skate.....	235,492	Dec. 14	536	154	18	1379
Barney, Everett H., Springfield, Mass. Roller-skate.....	235,666	Dec. 21	749	213	18	1421
Barney, Frank P., Norton, Mass. Button and stud.....	229,356	June 29	1451	399	17	1476
Barney, Nathan, Bergen Point, N. J. Automatically-dumping boat.....	226,960	Apr. 27	973	270	17	939
Barney, Samuel E., New Haven, Conn., assignor, by mesne assignments, to Magic Kuffie Company, New York, N. Y. Machine for making plaited puffing. (Reissue).....	9,391	Sept. 28	1114	305	18	731
Barnhart, Albert, Milton, Wis. Bee-hive.....	228,801	June 15	807	220	17	1369
Barnhurst, Henry R., Erie, Pa. Speed-regulator.....	224,764	Feb. 24	938	268	17	404
Barnhurst, Henry R., Erie, Pa. Valve-gear for steam-engines.....	232,800	Oct. 5	4	2	18	739
Barns, Charles, Syracuse, N. Y. Connecting neck-bands, yokes, and cuffs to shirts.....	229,232	June 29	1289	354	17	1455
Barnum, Edson D. (See Porter and Barnum.)						
Barnum, E. T. (See Gordon, William H., assignor.)						
Barnum, Starr H., <i>et al.</i> (See Frisbie, Dennis, assignor.)						
Baron, Alfred L. (See McGeorge, James, assignor.)						
Baron, Bernhard, Baltimore, Md. Cigarette.....	232,873	Oct. 5	97	26	18	754
Baron, Charles S. S., <i>et al.</i> (See Fry, Charles H., Jr., assignor.)						
Barr, Daniel W., assignor of one-half interest to H. B. Smeck, Reading, Pa. Gate-hinge.....	233,394	Oct. 19	760	208	18	879
Barr, George D., Greenville Court-House, S. C. Bottle-filler.....	233,187	Oct. 12	482	133	18	825
Barr, Jacob N., Altoona, Pa. Car-wheel chill.....	225,549	Mar. 16	674	197	17	592
Barr, Jacob N., Altoona, Pa. Chill for casting car-wheels.....	233,315	Oct. 19	663	183	18	863
Barr, William C., and W. H. Axford, Jersey City, N. J. Weighing-scales.....	226,959	Apr. 27	972	270	17	939
Barr, William C., Jersey City, N. J. Valve-gear for steam-hammers.....	233,188	Oct. 12	483	133	18	825
Barrett, Charles. (See Crockett and Barrett.)						
Barrett, Charles, Somerville, Mass. Freight-car.....	224,984	Mar. 2	4	1	17	457
Barrett, Charles, Somerville, Mass. Draw-bar for freight-cars.....	224,985	Mar. 2	5	2	17	457
Barrett, Charles, Somerville, Mass. Car-axle box.....	224,986	Mar. 2	6	2	17	457
Barrett, Charles, Somerville, Mass. Railway-car.....	225,913	Mar. 30	1110	317	17	690
Barrett, Henry, Hampton, England. Stopping or closing bottles, jars, and similar vessels.....	230,605	Aug. 3	8	2	18	248
Barrett, John A., Woodstock, Vt. Pendulum attachment for clocks.....	235,665	Dec. 21	748	213	18	1421
Barrett, Thomas. (See Arronquier and Barrett.)						
Barrie, Robert C., Jr., assignor of one-half interest to J. H. W. Chestnut, Philadelphia, Pa. Steam-engine.....	226,591	Apr. 20	538	151	17	858
Barrie, Robert C., Jr., assignor of one-half interest to J. H. W. Chestnut, Philadelphia, Pa. Mechanical movement.....	226,592	Apr. 20	539	151	17	858
Barringer, Medora D., Silver Creek, Mich. Thread-cutter.....	234,384	Nov. 16	701	189	18	1120
Barrington-Kennett, Vincent H. B., 15 Hyde Park Gardens, England. Feed-bag for horses.....	228,537	June 8	450	122	17	1307
Barron, Andrew, Janesville, Wis. Lime-kiln.....	227,203	May 4	134	39	17	999
Barron, Washington, Summit Bridge, Del. Field-marker.....	226,697	Apr. 20	658	183	17	877
Barrow, David. (See Barrow, Samuel, D., and J.)						
Barrow, Jacob. (See Barrow, Samuel, D., and J.)						
Barrow, Samuel, D., and J., Indianapolis, Ind. Rotary engine or pump.....	231,520	Aug. 24	1061	298	18	439
Barrow, Samuel, D., and J., Indianapolis, Ind. Steam-boiler.....	231,521	Aug. 24	1062	299	18	439
Barrow, Thomas E., assignor of one-half interest to H. D. B. Williams, Mansfield, Ohio. Valve for steam-engines.....	232,230	Sept. 14	421	117	18	602
Barrows, Henry M., Brooklyn, N. Y. Handle for folding cutlery.....	232,626	Sept. 28	904	249	18	696
Barrows, John F., Lincoln, Ill. Combined tablet-holder and hand-stamp.....	228,592	June 8	526	140	17	1318
Barrows, William E., Hartford, Conn. Cover and cooler for butter and other articles.....	224,126	Feb. 3	179	51	17	233

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Barrows, William N., assignor to H. J. Hand, Philadelphia, Pa. Apparatus for molding shells.....	230,916	Aug. 10	379	110	18	316
Barrows, William N., Philadelphia, Pa. Steam-jacket kettle.....	233,189	Oct. 12	484	133	18	825
Barry, James R., Yonkers, assignor to himself and W. H. Hayes, New York, N. Y. Top.....	226,958	Apr. 27	972	270	17	939
Barry, James R., Yonkers, N. Y., assignor of one-half to T. S. Livermore, Leicester, Mass. Combination puzzle and game apparatus.....	234,223	Nov. 9	492	135	18	1077
Barry, John, New York, N. Y. Thermometer-tube.....	233,963	Nov. 2	168	43	18	1014
Barsaloux, Joseph, Sandy Hill, assignor, by mesne assignments, to N. Lyon, Albany, N. Y. Metallic stiffener for boots and shoes. (Reissue.).....	9,198	May 11	600	172	17	1088
Barstow, Amos C., Providence, R. I. Stove.....	228,166	June 1	6	2, 3	17	1228
Barstow, John E., New York, N. Y. Combined gangway and life-raft.....	235,987	Dec. 28	1157	321	18	1497
Bartels, William H., Carthage, Ill., assignor of three-fourths interest to G. Vote, S. C. Farmer, Jr., and M. A. McCoid, Fairfield, Iowa. Foot-rest for rocking-chairs.....	231,644	Aug. 31	1217	341	18	470
Barthel, A. Edward. (See Müller, Hermann G., assignor.)						
Bartholomew, Francis A. (See Riley, William W., assignor.)						
Bartlett, Eayre O. (See Lewis and Bartlett.)						
Bartlett, Eayre O. (See Lewis and Bartlett.) (Reissue.)						
Bartlett, Frederick W. (See Pecor and Bartlett.)						
Bartlett, Frederick W., Galveston, Tex., assignor to G. W. Dunbar's Sons, New Orleans, La. Lining for tin cans.....	235,981	Dec. 28	1151	319	18	1496
Bartlett, George S., assignor of one-half interest to H. Thomas, León, Iowa. Pump.....	232,666	Sept. 28	955	262	18	704
Bartlett, John. (See Jones, Legge, and Bartlett.)						
Bartlett, Joseph W. (See Sandford, Frank V., assignor.)						
Bartlett, Octavo W., Brattleborough, Vt. Reed-organ.....	237,343	May 11	304	89	17	1039
Bartlett, Samuel H. (See Lockwood and Bartlett.)						
Bartlett, Samuel H., New York, N. Y. Portable galvanic battery.....	228,972	June 22	1012	275	17	1407
Bartlett, Samuel H., New York, N. Y. Portable galvanic battery.....	228,973	June 22	1013	275	17	1407
Bartlett, William D., Amesbury, Mass. Chimney-cap.....	232,434	Sept. 21	684	189	18	652
Bartley, Theodore D., Dresden Centre, N. Y. Breech-loading fire-arm.....	232,919	Oct. 5	151	40	18	763
Barton, David D., York, Pa. Key-fastener.....	226,016	Mar. 30	1247	352	17	710
Barton, Edward A., Montreal, Quebec, Canada. Nursing-bottle.....	234,224	Nov. 9	492	135	18	1077
Barton, Elijah C., assignor to himself, H. H. Abbe, E. G. Cone, and A. H. Conklin, East Hampton, Conn. Bell toy.....	235,405	Dec. 14	424	119	18	1360
Barjon, Hiram E. W., Vineland, N. J. Postal-card.....	225,319	Mar. 9	408	118	17	538
Barton, John W., Emporia, Kans. Neck-yoke.....	234,940	Nov. 30	1397	376	18	1247
Barton, William H. H., Warmouth, Mass. Sphygmophone.....	232,105	Sept. 14	278	78	18	577
Barton, William R., Bridgewater, Mass., assignor of one-half interest to G. C. Hammond, Pawtucket, R. I. Welt-trimmer.....	233,190	Oct. 12	485	134	18	825
Barton, William R., Bridgewater, Mass., assignor of one-half to G. C. Hammond, Pawtucket, R. I. Welt-trimmer.....	235,493	Dec. 14	537	154	18	1379
Bashaw, John W. (See McCormick and Bashaw.)						
Bass, William E. (See Freese, Francis J., assignor.)						
Bassett Corset Company. (See Bray, Morris P., assignor.)						
Bassett, Dewitt C., Cambria Mills, Mich. Buckle.....	234,453	Nov. 16	780	210	18	1133
Bassett, George T., Harwich, Mass. Meat-press.....	224,629	Feb. 17	766	217	17	359
Bassett, Greenleaf, Brewster, Mass. Wheel-guard for carriages.....	224,267	Feb. 10	341	98	17	280
Bassett, Royal M. (See Daniels, Charles, assignor.)						
Bast, Benjamin B. (See Talley and Bast.)						
Bast, Edward C., St. Louis, Mo. Drag-saw machine.....	224,987	Mar. 2	7	2, 3	17	458
Bast, George W. (See Talley and Bast.)						
Bastet, Louis, Brooklyn, N. Y. Machine for waxing paper.....	229,798	July 13	345	96	18	67
Bastet, Louis, Brooklyn, N. Y., assignor of two-thirds interest to J. G. Newcomb, Hoboken, N. J., and F. B. Squire, Brooklyn, N. Y. Manufacture of soap.....	232,922	Oct. 5	154	.....	18	763
Bataille, Achille, New York, N. Y. Flexible joint for pipes.....	225,267	Mar. 9	329	96, 97	17	526
Bataille, Achille, New York, N. Y. Pipe joint or coupling.....	230,606	Aug. 3	9	3	18	248
Batchelder, Fred B., East Boston, Mass. Leather-finishing machine.....	227,204	May 4	135	39	17	1000
Batchelder, Hazen J., Catsauqua, Pa., assignor, by mesne assignments, to T. S. Very, Boston, Mass. Roll for horseshoe-blanks.....	234,942	Nov. 30	1400	376	18	1247
Batchelder, John, Jr., Jamaica Plain, Mass. Air-heating stove.....	231,390	Aug. 24	922	260	18	417
Batchelor, Frank, Plainwell, Mich. Wheel-harrow, cultivator, and seeding-machine.....	228,021	May 25	1102	314	17	1187
Batchelor, Joseph F., Baltimore, Md. Signal-lantern.....	230,522	July 27	1225	345	18	222
Batchelor, Joseph F., Baltimore, Md. Vacuum and air brake.....	231,258	Aug. 17	778	217	18	386
Bate, Wallace H., assignor to himself and J. Middleby, Boston, Mass. Bottle stopper and fastening.....	231,524	Aug. 24	1066	300	18	440
Bateman, Daniel. (See Bateman, William F., assignor.)						
Bateman, Daniel, Low Moor, near Bradford, Yorkshire, England. Apparatus for hardening and tempering wire.....	224,127	Feb. 3	180	51	17	233
Bateman, Henry B. (See Lück, John J., assignor.)						
Bateman, Henry B. (See Lück and Bateman.)						
Bateman, William F., assignor to D. Bateman, Low Moor, England. Apparatus for tempering wire for card-teeth.....	228,301	June 1	170	47	17	1254
Bateman, William H., and F. N. Hooper, Baltimore, Md. Printer's galley.....	231,525	Aug. 24	1067	300	18	440
Bates, Charles L., New York, N. Y. Gong-bell.....	231,752	Aug. 31	1340	377	18	489
Bates, David H., et al. (See Hadden, William, assignor.)						
Bates, George G., New York, N. Y. Machine for making ruches.....	232,437	Sept. 21	688	190	18	652
Bates, James, Baltimore, Md. Metal cap for chimneys.....	234,647	Nov. 23	1039	279	18	1183
Bates, John L., Franklin, Ark. Water-wheel.....	224,128	Feb. 3	181	52	17	233
Bates, Levi M., et al. (See Ehrlich, Edward, assignor.)						
Bates, Samuel A., assignor to himself, J. J. McCormick, and R. Liddell, Pittsburg, Pa. Elevator for loading and unloading vessels.....	228,593	June 8	527	141	17	1318
Bates, Samuel D., Lewisburg, Pa. Harvester.....	231,526	Aug. 24	1067	300	18	440
Bates, Theodore C., et al. (See Hill, Lucian, assignor.)						
Bates, Theodore C., North Brookfield, Mass. Corset.....	235,928	Dec. 28	1089	301	18	1485
Bates, Thomas L., et al. (See Witsil, George L., assignor.)						
Bates, William S., Cincinnati, Ohio. Horse hay-rake.....	233,191	Oct. 12	486	134	18	825
Bathrick, Lewis E. (See Witt, Daniel, assignor.)						
Batson, John D., Lexington, Ky. Machine for cleaning blue-grass seed.....	226,698	Apr. 20	659	183	17	878
Batt, Charles F., Phoenixville, Pa. Pendulum-scale.....	235,982	Dec. 28	1151	320	18	1496
Batt, Charles F., Phoenixville, Pa. Lock and latch combined.....	235,983	Dec. 28	1152	320	18	1496
Battelle, Andrew B., Bellaire, Ohio. Covering for steam and hot-air pipes.....	223,695	Jan. 20	597	160	17	124
Battelle, Andrew B., Bellaire, Ohio. Covering for steam and hot-air pipes. (Reissue.).....	9,318	July 27	1313	370	18	238
Battelle, John G., Memphis, Tenn. Bale-tie.....	233,913	Nov. 2	97	26	18	1003
Battelle, John G., Memphis, Tenn. Bale-tie.....	234,943	Nov. 30	1401	377	18	1247
Battles, Albert J., et al., trustees. (See Blackledge, Robert, assignor.)						



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Batty, Albert. (See Batty, Job, assignor.) (Reissue.)						
Batty, Job, Philadelphia, Pa., assignor to A. Batty. Arrangement of apparatus for and process of forming laps. (Reissue.)	9,413	Oct. 12	658	181	18	855
Bauce, Charles W., Jersey City, N. J. Bung for barrels.	229,943	July 13	506	140	18	92
Bauder, Adam, assignor of two-thirds interest to H. Rensh and C. Martens, New Orleans, La. Hame-fastener.	228,022	May 25	1102	314	17	1187
Bauer, George W., assignor of one-half to F. Behl, Grand Rapids, Mich. Swing.	233,914	Nov. 2	98	26	18	1003
Baugh, Daniel, <i>et al.</i> (See Terne, Bruno, assignor.)						
Baugh, Edwin P., <i>et al.</i> (See Terne, Bruno, assignor.)						
Baugh, Edwin P., Philadelphia, Pa. Mill for reduction.	233,833	Nov. 2	6	2	18	987
Baugh, John P., <i>et al.</i> (See Terne, Bruno, assignor.)						
Baugh, Levi, Jr. (See Janssen and Baugh.)						
Baughy, David E., St. Thomas, Pa. Machine for leveling millstones and trammung spindles.	224,812	Feb. 24	999	283	17	413
Baughman, John, Indianapolis, Ind. Belt-tightener.	224,378	Feb. 10	470	135	17	300
Baum, Heinrich, assignor to Farbwerke, vormals Meister, Lucius & Brüning, Höchst-on-the-Main, Germany. Red coloring-matter.	233,465	Oct. 19	841	-----	18	892
Baum, John W., Gillmor City, Pa. Device for cleaning paraffine from the tubings of oil-wells.	230,917	Aug. 10	380	110	18	316
Bauman, Gerhart, Middletown, Conn. Door-spring.	228,856	June 15	869	237	17	1378
Bauman, John, Oshkosh, Wis. Inkstand.	226,155	Apr. 6	8	2	17	748
Baumgartner, John C., Fraser, Mich. Gate-hanger.	231,467	Aug. 24	1003	282	18	430
Baur, Charles, New York, N. Y. Stylographic fountain-pen.	225,914	Mar. 30	1111	317	17	690
Bausch, John J., Rochester, N. Y. Microscope.	230,688	Aug. 3	108	31	18	264
Bausmith, William T., Ludlow, Ky. Lever-clamp.	235,064	Dec. 7	5	2	18	1281
Baxley, Levi L., assignor of part interest to E. A. Spink, J. F. T. Holbeck, and E. Lehmpubl, Chicago, Ill. Filtering-press.	230,103	July 20	703	197	18	133
Baxter, James H., Adams' Basin, N. Y. Potato-digger.	232,801	Oct. 5	5	2	18	740
Baxter, John D., Mechanicsville, N. Y. Chisel.	230,223	July 20	839	237	18	154
Baxter, Myron L., Aurora, Ill. Electric call-bell.	233,834	Nov. 2	7	2, 3	18	988
Baxter, Tubal C., Glenwood, Kans. Potate-fork.	227,720	May 18	742	208	17	1119
Baxter William, Newark, N. J. Steam-engine reversing-gear.	223,632	Jan. 20	527	142	17	113
Bayley, William, assignor to Whiteley, Fassler & Kelly, Springfield, Ohio. Draft-equalizer.	234,702	Nov. 23	1105	297	18	1193
Bayliff, Lewis P., and W. Harrod, Union township, Anglaize county, Ohio, assignors of one-half interest to A. Smith and A. Besse. Car-coupling. (Reissue.)	9,063	Feb. 3	328	94	17	258
Bazin, Ernest, Paris, France. Hydrostatic coffee and tea pot.	230,523	July 27	1226	{ 345 } { 346 }	18	222
Beach, Abel, Iowa City, Iowa. Writing-tablet.	223,980	Feb. 3	8	3	17	204
Beach, Alexander H., Linden, Mich. Fifth-wheel platform.	231,469	Aug. 24	1005	282	18	431
Beach, Charles Y., Fairfield, Conn. Manufacture of rubber or other gum cloth and compositions thereof.	223,874	Jan. 27	821	-----	17	170
Beach, Charles Y., Fairfield, Conn. India-rubber and other gum compounds for surfacing cloth and for other purposes.	226,017	Mar. 30	1248	-----	17	710
Beach, George E., Marshalltown, Iowa. System of water-supply for cities and towns.	233,594	Oct. 26	1013	282	18	931
Beach, Henry H., Rome, N. Y. Feed for horses and cattle.	232,327	Sept. 21	551	-----	18	630
Beach, Henry L., Montrose, Pa. Frame for scroll-sawing machines.	231,468	Aug. 24	1004	282	18	430
Beach, Isaac D., Jr., assignor to himself and T. T. Beach, Millersville, Mo. Nut-lock.	224,630	Feb. 17	767	217	17	350
Beach, Joseph B., West Meriden, assignor to Simpson Hall Miller & Co., Wallingford, Conn. Table-bell hanger.	224,379	Feb. 10	470	135	17	360
Beach, Philip. (See Veil, George W., assignor.)						
Beach, T. T. (See Beach, Isaac D., Jr., assignor.)						
Beal, Alpha R., Newton, Mass. Easel.	228,435	June 8	327	89	17	1289
Beal, John A., Hackensack, N. J. Bridle.	223,270	Jan. 6	75	19	17	15
Beale, Forest W., <i>et al.</i> (See Pease, Charles, assignor.)						
Beale, Joseph H. (See Smith and Beale.)						
Beall, O. M., <i>et al.</i> (See Officer, William E., assignor.)						
Beals, David S., Detroit, Mich., assignor, by mesne assignments, to H. Anderson, Chicago, Ill. Railway draw-bar. (Reissue.)	9,401	Oct. 12	636	176	18	851
Beamisderfer, Joseph A., Campbelltown, Pa. Thill-support.	229,357	June 29	1453	400	17	1477
Bean, James M., Watertown, assignor of one-fourth interest to C. Whittier, Boston, Mass. Gate.	228,436	June 8	327	89, 90	17	1289
Bean, John and R., Springfield, Ohio. Windmill-pump.	226,699	Apr. 20	660	184	17	878
Bean, John and R., Springfield, Ohio. Grain-grinder.	233,192	Oct. 12	488	134	18	826
Bean, John E., and A. G. Kooker, Port Kennedy, Pa. Thill-coupling.	230,394	July 27	1080	304	18	198
Bean, Roscoe. (See Bean, John and R.)						
Bean, Roscoe, Springfield, Ohio. Double-acting pump. (Reissue.)	9,475	Nov. 23	1278	342	18	1221
Bean, Samuel L., Washington, D. C. Collecting and grading dust of flour and grain in flour-mills.	228,023	May 25	1103	314	17	1187
Bean, Samuel L., Washington, D. C. Balloon for collecting flour-dust in mills.	235,197	Dec. 7	161	46	18	1309
Beane, Eben J., Providence, R. I. Shoe.	223,576	Jan. 13	452	122	17	91
Beane, Eben J., Providence, R. I. Uniting pieces of leather.	227,947	May 25	1012	290	17	1174
Bear, Emanuel M., Oil City, Pa. Clasp.	233,964	Nov. 2	168	43	18	1014
Beard, Alfred, Cincinnati, Ohio. Wrench.	232,923	Oct. 5	155	41	18	763
Beard, Charles M. (See Burnham, Walter, assignor.)						
Beard, Charles M., Elroy, Wis. Clutch for bow-strings.	228,302	June 1	171	47	17	1254
Beard, Eleazar J. (See Kistler, Willoughby F., assignor.)						
Beard, George M., Angola, Ind. Windmill.	233,134	Oct. 12	422	116	18	814
Beard, John. (See Cook, Chase, and Beard.)						
Beard, Joseph H., Providence, Ky. Fire-place.	224,129	Feb. 3	182	52	17	233
Beard, Joseph C., Pine Bluff, Ark. Signal-converger for hotels and other buildings.	229,081	June 22	1132	307	17	1424
Beardslee, William F., Boston, Mass. Wire-reel for sewing-machines.	232,168	Sept. 14	348	98	18	589
Bearn, Henry I., assignor of one-third interest to C. G. Melcher, Elkhart, Ind. Steam or fluid brake.	231,143	Aug. 17	635	180	18	363
Beasley, Maria E., Philadelphia, Pa. Life-raff.	226,264	Apr. 4	132	37	17	769
Beattie, William, Cohoes, N. Y. Machine for uniting knit fabrics.	228,802	June 15	807	{ 220 } { 221 }	17	1369
Beattie, William C., assignor to Reed & Barton, Taunton, Mass. Salt-cellar and pepper-box.	225,785	Mar. 23	962	277	17	651
Beattie, William C., assignor to Reed & Barton, Taunton, Mass. Pickle-caster.	225,786	Mar. 23	962	277	17	651
Beattie, William C., assignor to Reed & Barton, Taunton, Mass. Jewel-case.	225,787	Mar. 23	963	{ 277 } { 278 }	17	651
Beattie, William C., assignor to Reed & Barton, Taunton, Mass. Butter-dish.	234,739	Nov. 23	1147	309	18	1200
Beatty, R. J. (See Fox, William, assignor.)						
Beatty, Robert J. (See Zimmerman, George, assignor.)						
Beatty, Robert P., Brooklyn, assignor of one-half interest to J. H. Haulenbeck, New York, N. Y. Direction-card.	226,825	Apr. 27	810	226	17	914

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Beaty, Abram D., and W. H. Calkins, Painted Post, N. Y. Buckwheat-hulling apparatus.	234,113	Nov. 9	358	99	18	1053
Beandry, Zotique, Lynn, Mass. Jack for boots and shoes.	231,527	Aug. 24	1069	300	18	440
Beaumont, Frederick E. B., Westminster, England. Air-engine.	232,438	Sept. 21	689	190 191	18	652
Beavers, F. Y., <i>et al.</i> (See Youree, Silas M., assignor.)						
Bebee, Orson. (See Ticknor and Bebee.)						
Bebont, James M., Madison, Ind. Car-lifting device.	233,395	Oct. 19	760	209	18	879
Beck, August, New York, N. Y., assignor, by mesne assignments, to L. Dryfoos. Quilt- ing-machine. (Reissue.)	9,097	Feb. 24	1181	338 339	17	443
Beck, Frederick, New York, N. Y. Coating and ornamenting the surfaces of paper, cloth, &c. (Reissue.)	9,473	Nov. 23	1275		18	1221
Beck, George T., Lexington, Ky. Mechanical movement.	235,984	Dec. 28	1153	320	18	1496
Beck, William F., Bellefonte, Pa. Piano-truck.	228,857	June 15	869	237	17	1378
Becker, August H., St. Louis, Mo. Plastered wall.	223,696	Jan. 20	598		17	124
Becker, Edward, assignor of one-half interest to Bussey, McLeod & Co., Troy, N. Y. Stove-leg.	230,689	Aug. 3	109	31	18	264
Becker, Francis L., Galveston, Tex. Music-leaf turner.	225,550	Mar. 16	675	197 198	17	593
Becker, Francis L., Galveston, Tex. Finger-exercising machine.	232,231	Sept. 14	422	117	18	602
Becker, Frederick, Albany, N. Y. Device for amusement and instruction.	233,198	Oct. 12	495	136	18	827
Becker, Frederick W., Winona, Minn. Stock-car.	229,659	July 6	167	46	18	34
Becker, Herman, Philadelphia, Pa. Truss.	232,439	Sept. 21	691	191	18	653
Becker, Leander, York, Pa. Washing-machine.	232,667	Sept. 28	956	262	18	704
Beckfeld, William J. (See Marchand, Henry E., assignor.)						
Becklund, Walter, <i>et al.</i> (See Rnpp, John, assignor.)						
Becktel, Charles J., and F. M. Horner, Muncie, Ind. Mail-bag.	231,981	Sept. 7	135	34	18	545
Beckwith, John H. (See Galloway and Beckwith.)						
Beckwith, Leonard F. (See Du Motay and Beckwith.)						
Bedeau, Paul, St. Louis, Mo. Center-piece.	233,595	Oct. 26	1015	282	18	931
Bedel, James S., Kalamazoo, Mich. Lamp-shade.	228,024	May 25	1104	314	17	1188
Bedell, David. (See Smyth, Charles A., assignor.)						
Bedell, Otis T., New York, N. Y. Sound-deadener for car-trucks.	227,205	May 4	137	39	17	1000
Bedford, Alma, Coldwater, Mich. Sully.	226,826	Apr. 27	811	226	17	914
Bee, Benjamin F., Harwich, Mass. Button-fastener.	229,853	July 13	409	113	18	77
Beebe, Calvin T., assignor to Withington & Cooley Manufacturing Company, Jackson, Mich. Cast-steel garden-rake.	227,473	May 11	450	129	17	1063
Beebe, Eugene, J. M. Connor, and E. Beebe, Jr., Montgomery, Ala. Thill-coupling.	228,506	June 8	414	113	17	1302
Beebe, Frank N., Columbus, Ohio. Spring-extractor for fire-arms.	230,224	July 20	840	238	18	154
Beebe, George F. and W. O., Hornellsville, assignors of one-third interest to C. M. Woods, New York, N. Y. Pump.	226,018	Mar. 30	1249	352 353	17	710
Beebe, Henry C., assignor of one-third interest to M. F. Beebe, Canton, Ill. Shovel-plov point.	223,309	Jan. 6	123	31	17	22
Beebe, M. F. (See Beebe, Henry C., assignor.)						
Beebe, Thomas J. (See Sangster, Hugh, assignor.)						
Beebe, Walter O. (See Beebe, George F. and W. O.)						
Beebe, Walter O., F. B. Dickey and C. W. Barnes, Belmont, N. Y. Submerged pump.	226,019	Mar. 30	1250	353	17	711
Beebe, William H. (See Pantan, Janson and E., assignors. Reissue.)						
Beebe, William H. (See Pell, Henry W., assignor.) (Reissue.)						
Beebe, William H. (See Shalters and Ray, assignors.) (Reissue.)						
Beebe, William H. (See Wolf, David, assignor.) (Reissue.)						
Beebe, Robert M., Chico, Cal. Horse-power.	223,875	Jan. 27	822	219	17	170
Beecher, Henry M., assignor of one-half interest to C. S. Mersick, New Haven, Conn. Fence- post.	223,665	Jan. 20	564	152	17	119
Beede, C. O., <i>et al.</i> (See Tyler, T. Frank, assignor.)						
Beedle, Asa T. (See Kelly, John, assignor.)						
Beeher, Karl, assignor to himself and G. Liedman, Berlin, Prussia, Germany. Velocipede.	233,396	Oct. 19	761	209	18	879
Beehler, Benedict, St. Louis, Mo. Lumber-polishing machine.	231,259	Aug. 17	779	218	18	386
Beekman, Gerard, assignor of one-half interest to J. W. Beekman, New York, N. Y. Cot- ton-picking machine.	227,949	May 25	1016	291	17	1174
Beekman, Gerard, assignor of one-half interest to J. W. Beekman, New York, N. Y. Cut- ting apparatus for mowers and reapers.	227,950	May 25	1019	291	17	1175
Beekman, J. William. (See Beekman, Gerard, assignor.)						
Beeks, James C., Fort Wayne, Ind. Wrench.	229,249	June 29	1455	400	17	1477
Beers, Edwin A. (See Whiteman, Israel R., assignor.)						
Beers, Edwin A., De Kalb, and T. W. Eaton, Chicago, Ill.; said Eaton assignor to said Beers. Machine for manufacturing barbed fence-wire.	227,948	May 25	1012	290	17	1174
Beers, John W. A., assignor to Stauley Works, New Britain, Conn. Die for making sheet- metal hinge-blanks.	233,135	Oct. 12	423	116	18	814
Deery, William F., Nodaway Mills, Iowa. Hanging doors.	234,703	Nov. 23	1105	297	18	1193
Beesley, Jacob. (See Peterson and Beesley.)						
Beeson, James, Okolona, Miss. Combined planter and cultivator.	224,988	Mar. 2	8	3	17	458
Beeson, Thomas B., Wilmington, Del. Roofing-tongs.	233,965	Nov. 2	170	43	18	1014
Beezley, James, Rocky Ford, Colo. Gate.	234,740	Nov. 23	1148	309	18	1200
Beggs, Christina, Allegheny, Pa. Car-seat.	229,944	July 13	507	140	18	92
Begon, Louis, San Francisco, Cal. Plow.	227,405	May 11	371	109	17	1049
Begon, Louis, San Francisco, Cal. Central draft for plows.	227,406	May 11	372	110	17	1049
Behl, Fred. (See Bauer, George W., assignor.)						
Behlen, Charles, Jr., assignor of one-half to G. Moerlein, Cincinnati, Ohio. Vehicle.	235,494	Dec. 14	538	155	18	1379
Behney, J. Frank. (See Ross, Ezra P., assignor.)						
Behr, Hans C. (See Eckart and Behr.)						
Behr, Herman, Brooklyn, N. Y. Baby-carrier.	229,233	June 29	1290	354	17	1455
Beidler, Charles, assignor of one-half interest to E. Harvey, Allentown, Pa. Mechanical movement.	232,232	Sept. 14	423	117	18	603
Beidler, George A., Middletown, Pa. Lantern-burner.	225,788	Mar. 23	964	278	17	652
Beidler, George A., Middletown, Pa. Burner for lamps and lanterns.	227,474	May 11	451	129	17	1063
Beidler, George A., Middletown, Pa. Combined lamp shade and chimney.	233,966	Nov. 2	170	43	18	1014
Beightle, John L., Holton, Kans. Hay rake and loader.	234,741	Nov. 23	1149	309	18	1200
Bejottes, Leon J., assignor of one-half to Fernandez & Calvo, New York, N. Y. Cigarette- machine.	235,985	Dec. 28	1154	320 321	18	1497
Belcher, David H. (See Barker, Joseph, assignor.)						
Belcher, Orlando F., Winthrop, Mass. Cartridge-loading machine.	231,753	Aug. 31	1341	378	18	489
Belden, Albert C. (See Fahs, Belden, and Kremer.)						
Beldsmeier, Henry W., assignor to J. W. Beldsmeier, St. Louis, Mo. Excavator.	233,316	Oct. 19	664	183	18	863
Beldsmeier, Johanna W. (See Beldsmeier, Henry W., assignor.)						
Belfield, T. Broom, Philadelphia, Pa. Machine for grinding valves.	235,495	Dec. 14	539	155	18	1379

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Bellknap, Ethelbert, Yonkers, N. Y. Manufacture of wool-felt fabrics.....	223,633	Jan. 20	528	-----	17	113
Bellknap, Jackson O., New York, N. Y. Sign.....	231,983	Sept. 7	137	35	18	546
Bellknap, Lewis, B. Boston, Mass. Combination garden and lawn rake.....	237,951	May 25	1020	292	17	1175
Bell, Alexander C., New Alexandria, Pa. Cider-mill and wine-press.....	235,198	Dec. 7	163	46	18	1309
Bell, Alexander G., Washington, D. C., assignor to National Bell Telephone Company, Boston, Mass. Electric telephone transmitter.....	228,507	June 8	416	114	17	1302
Bell, Alexander G., Washington, D. C. Automatic short-circuiter for telephones.....	230,163	July 20	775	216	18	143
Bell, Alexander G., Washington, D. C., assignor to American Bell Telephone Company, Boston, Mass. Apparatus for signaling and communicating, called "photophone".....	235,199	Dec. 7	165	47	18	1309
Bell, Alexander G., Washington, D. C., and S. Tainter, Watertown, Mass. Photophone-transmitter.....	235,496	Dec. 14	540	155	18	1380
Bell, Alexander G., Washington, D. C., and S. Tainter, Watertown, Mass. Selenium-cell..	235,497	Dec. 14	542	156	18	1380
Bell, Alexander G., Washington, D. C., and S. Tainter, Watertown, Mass.; said Bell assignor to American Bell Telephone Company. Treating selenium to increase its electric conductivity.....	235,616	Dec. 21	695	-----	18	1411
Bell, Charles J., Brantford, Ontario, Canada. Telephone call-register.....	229,302	June 29	1379	379	17	1467
Bell, Charles J., Chicago, Ill. Car-coupling.....	229,660	July 6	167	46	18	34
Bell, Charles J., Chicago, Ill. Car brake and starter.....	234,648	Nov. 23	1040	280	18	1183
Bell, Charles S., Amador City, Cal., assignor of one-half interest to J. R. Johns and W. W. Kirkland. Grain measure and register.....	233,136	Oct. 12	424	117	16	814
Bell, George, New York, N. Y. Boiler and furnace.....	227,475	May 11	452	130	17	1063
Bell, George C., assignor to Belltype Engraving Company, (limited,) New York, N. Y. Photo-relief engraving.....	226,383	Apr. 13	268	-----	17	805
Bell, George W., St. Joseph, Mo. Weather-strip.....	227,404	May 11	370	109	17	1049
Bell, Joseph M., Ellisville, Ill. Corn-planter.....	235,331	Dec. 14	347	95	18	1347
Bell Meter Company. (See Swartz and Taylor, assignors.)						
Bell, M. Fred., Fulton, Mo. Adjustable chair.....	226,475	Apr. 13	380	103	17	822
Bell, Morris F., Fulton, Mo. Adjustable rocking-chair.....	224,130	Feb. 3	183	52	17	234
Bell, Newton M. (See Cummings, Charles, assignor.)						
Bell, R. M. (See Spencer, William H., assignor.)						
Bell, Smith R., Palestine, Ark. Cultivator.....	235,986	Dec. 28	1156	321	18	1497
Bell, Thomas J., assignor of one-fourth interest to T. Mitchell, Grantville, Nev. Mechanism for converting motion.....	229,026	June 22	1070	292	17	1415
Bell, William. (See Cameron, James W., assignor.)						
Bell, William. (See Sloane and Bell.)						
Bell, William. (See Sloane and Potter, assignors.)						
Bell, William C., Savannah, N. Y. Metal-roofing machine.....	231,982	Sept. 7	136	34	18	546
Bell, William H., Sr., Baltimore, Md. Trunk.....	228,858	June 15	870	237	17	1378
Bell, William H., Sr., Baltimore, Md. Revolving fire-arm.....	228,859	June 15	871	238	17	1378
Bellanger, Majloir, Evert, Mich. Cant-hook.....	232,627	Sept. 28	906	249	18	696
Bellows, Stephen H., et al. (See Chaplin, Orril R., assignor.) (Reissue.)						
Bellows, Stephen H., Athol, Mass. Monkey-wrench.....	228,437	June 8	328	90	17	1289
Belltype Engraving Company. (See Bell, George C., assignor.)						
Bement, Ernest M., assignor to himself and M. S. Allen; said Allen assignor to A. M. Allen, New York, N. Y. Portable bathing apparatus.....	231,984	Sept. 7	138	35	18	546
Bemis, James, Des Moines, Iowa. Salve.....	228,724	June 15	704	-----	17	1355
Bender, Charles H., et al. (See Hickox, Francis Z., assignor.)						
Bender, George E., Everett, Pa. Crate.....	225,551	Mar. 16	678	108	17	594
Bender, George W., Canton, Ohio. Roofing composition.....	225,094	Mar. 2	137	-----	17	430
Bendix, George E., assignor of one-half interest to W. Lipe, New York, N. Y. Drawer-lock.....	234,454	Nov. 16	781	210	18	1133
Benedict, George G. (See Boone, Alonzo T., assignor.)						
Benedict, Robert L., Bordley, Ky. Corn-drill.....	225,095	Mar. 2	138	39	17	480
Benjamin, Alfred, New York, N. Y. Corset-spring.....	223,214	Jan. 6	6	2	17	3
Benjamin, De Laut. (See Stacy and Benjamin.)						
Benjamin, George P., New York, N. Y. Spoon.....	225,729	Mar. 23	965	278	17	652
Benjamin, Harris, et al. (See Benjamin, Isaac, assignor.)						
Benjamin, Isaac, assignor of three-fourths interest to M. and H. Benjamin, Chicago, Ill. Needle.....	234,371	Nov. 9	656	179	18	1104
Benjamin, Moses, et al. (See Benjamin, Isaac, assignor.)						
Bennet, William B. (See Woodard and Bennet.)						
Bennett, Allan T. (See Holmgreen, Julius H., assignor.)						
Bennett, Allen, et al. (See Dickey, William H., assignor.)						
Bennett, Daniel, Chillicothe, assignor of one-half interest to W. A. Gill, Columbus, Ohio. Can.....	228,167	June 1	8	3	17	1228
Bennett, Daniel E. (See Bennett, Hiram R. and D. E.)						
Bennett, Edward C., Philadelphia, Pa., assignor of one-half interest to J. R. White, Boston, Mass. Portable folding derrick.....	227,875	May 25	927	{ 265 266 }	{ 17 17 }	{ 1161 538 }
Bennett, Edward O., Santa Clara, Cal. Paper-bag machine.....	225,322	Mar. 9	415	120	17	538
Bennett, Edwin H., Bayonne, N. J., assignor to G. H. Babcock and S. Wilcox, New York, N. Y. Tube-fastening.....	235,406	Dec. 14	425	119	18	1360
Bennett, Elwood, Kokomo, Ind. Saw-mill dog.....	232,924	Oct. 5	156	41	18	764
Bennett, Eugene A., Phelps, N. Y. Rowing-gear for racing-boats.....	230,690	Aug. 3	109	32	18	264
Bennett, Frank W. (See Hemenway, Bennett, and Kirk.)						
Bennett, George S. (See Dickey, William H., assignor.)						
Bennett, Hiram R. and D. E., Sterling, Mich. Plow.....	231,985	Sept. 7	138	36	18	546
Bennett, John, assignor of one-half interest to W. H. Miller, Lucknow, Ontario, Canada. Device for adjusting saw-tables.....	225,323	Mar. 9	416	120	17	539
Bennett, John E. (See Hewitt and Bennett.)						
Bennett, John R., Nunda, N. Y. Oil-can top.....	228,025	May 25	1105	315	17	1188
Bennett, Leopold. (See Morledge and Bennett.)						
Bennett, Lewis J., Buffalo, N. Y. Revolving screen.....	225,206	Mar. 9	264	76	17	515
Bennett, Lewis J., Buffalo, N. Y. Disintegrating-mill.....	225,552	Mar. 16	679	{ 198 199 }	{ 17 17 }	{ 594 594 }
Bennett, Lewis J., Buffalo, N. Y. Obtaining the glutinous and starchy substances from Indian corn.....	230,991	Aug. 10	463	-----	18	328
Bennett, Roswell N., Union Mills, Ind., assignor to A. C. Evans, Springfield, Ohio. Harrow. (Reissue.)	9,430	Oct. 26	1279	358	18	971
Bennett, Thomas G. (See Wetmore and Bennett.)						
Bennett, Thomas G., assignor to Winchester Repeating Arms Company, New Haven, Conn. Lock for fire-arms.....	223,797	Jan. 27	722	195	17	155
Bennett, Thomas G., New Haven, Conn., assignor to Winchester Repeating Arms Company. Manufacture of cartridge-shells.....	224,765	Feb. 24	939	268	17	404
Bennett, Thomas G., New Haven, Conn., assignor to Winchester Repeating Arms Company. Machine for feeding cartridge-shells.....	232,169	Sept. 14	348	98	18	589

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Bennett, Thomas G., assignor to Winchester Repeating Arms Company, New Haven, Conn. Method and apparatus for annealing cartridge-shells.....	232,882	Oct. 5	107	29	13	755
Bennett, Thomas O., and S. Trenbath, Clifton, Mich. Mail-bag.....	229,358	June 29	1454	400	17	1477
Bennett, William B., Verona, Pa. Vehicle-spring.....	226,593	Apr. 20	541	151	17	859
Bennett, William H. (See Hemenway, Bennett, and Kirk.)						
Bennett, William T., Petersburg, Ill. Tool for cutting plate-iron.....	232,668	Sept. 23	957	262	18	704
Bennett, William W. (See Chinnoek and Bennett.)						
Bennett, Zelotes R., Brooklyn, N. Y. Inking-fountain for printing-machines.....	225,964	Mar. 30	1185	337	17	701
Bennor, Joseph. (See Tayman and Bennor.)						
Bennor, Joseph, and P. Pond, Philadelphia, Pa., assignors, by mesne assignments, to Railway Register Manufacturing Company, Buffalo, N. Y. Registering apparatus. Reissue.....	9,118	Mar. 16	822	{ 240 241 }	{ 17 }	619
Bennor, Joseph, Philadelphia, Pa. Combined valve and seal-joint for wash-stands, bathtubs, &c.....	226,476	Apr. 13	381	108	17	822
Bennor, Joseph, Philadelphia, Pa. Seal-joint trap for wash-stands, &c.....	226,961	Apr. 27	974	271	17	939
Bensing, Moses, Chicago, Ill., and B. F. Goodrich, Akron, Ohio, assignors to J. M. Brunswick and Balke Company, Chicago, Ill. Cushion for billiard-tables.....	226,827	Apr. 27	812	227	17	914
Benson, Frank S. (See Regan, Thomas J. F., assignor.)						
Benson, Henry C., and J. Hoffman, assignors to J. Reckendorfer, New York, N. Y. Lead and crayon holder.....	223,466	Jan. 13	318	85	17	69
Benson, Henry C., assignor to J. Reckendorfer, New York, N. Y. Lead and crayon holder.....	223,467	Jan. 13	319	85	17	69
Benson, Henry C., assignor to J. Reckendorfer, New York, N. Y. Machine for trimming the ends of lead-pencils.....	229,661	July 6	169	47	18	34
Benson, Henry C., assignor to J. Reckendorfer, New York, N. Y. Pencil-holder.....	235,726	Dec. 21	823	230	13	1433
Benson, Joseph, Boston, Mass. Ash-sifter.....	228,803	June 15	810	221	17	1369
Benthall, John C., Schulenberg, Tex. Cotton-picking shade.....	223,468	Jan. 13	320	86	17	70
Bentley, John D., assignor of one-half interest to O. H. K. Risley, Willimantic, Conn. Rein-holder.....	225,739	Mar. 23	901	262	17	642
Bentley, Matthew H. (See Whipple, George W., assignor.)						
Benton, John B., New York, assignor to Railway Register Manufacturing Company, Buffalo, N. Y. Fare-register.....	225,044	Mar. 2	77	22, 23	17	469
Benton, John B., New York, assignor to Railway Register Manufacturing Company, Buffalo, N. Y. Fare-register.....	227,206	May 4	138	40, 41	17	1000
Benton, John B., New York, assignor to Railway Register Manufacturing Company, Buffalo, N. Y. Operating connection for fare-registers.....	227,207	May 4	142	41	17	1001
Benton, John B., New York, assignor, by mesne assignments, to Railway Register Manufacturing Company, Buffalo, N. Y. Passenger-register. (Reissue).....	9,312	July 20	1047	{ 296 297 }	{ 18 }	187
Benton, John B., New York, assignor, by mesne assignments, to Railway Register Manufacturing Company, Buffalo, N. Y. Passenger-register. (Reissue).....	9,313	July 20	1052	298	18	188
Benton, John B., New York, assignor to Railway Register Manufacturing Company, Buffalo, N. Y. Fare-register.....	229,662	July 6	172	47, 48	18	34
Benton, John B., New York, assignor to Railway Register Manufacturing Company, Buffalo, N. Y. Fare-register.....	230,169	July 20	776	217	18	144
Benton, John B., Roselle, N. J., assignor to Railway Register Manufacturing Company, Buffalo, N. Y. Fare-register.....	231,207	Aug. 17	721	{ 202 203 }	{ 18 }	377
Benton, John B., Roselle, N. J., assignor to Railway Register Manufacturing Company, Buffalo, N. Y. Fare-register.....	233,915	Nov. 2	99	26, 27	18	1003
Benton, John B., New York, assignor to Railway Register Manufacturing Company, Buffalo, N. Y. Fare-register.....	234,742	Nov. 23	1150	310	18	1200
Benton, John B., New York, assignor to Railway Register Manufacturing Company, Buffalo, N. Y. Fare-register.....	235,407	Dec. 14	426	{ 120 121 }	{ 18 }	1360
Benton, John B., New York, assignor to Railway Register Manufacturing Company, Buffalo, N. Y. Fare-register.....	235,498	Dec. 14	545	156	18	1280
Benton, Josiah G. (See Gaskill and Benton.)						
Benton, William, Sugar Grove, Ill. Hog-cholera compound.....	224,989	Mar. 2	9		17	458
Benton, William H. (See Foster and Benton.)						
Benton, William H. (See Foster and Benton.) (Reissue.)						
Berdan, Marvin, Plymouth, Mich. Windmill.....	225,554	Mar. 16	682	200	17	594
Berg, John. (See Heers, Henry C. W., assignor.)						
Berg, John, Grinnell, Iowa. Fire-extinguisher for railway-cars.....	226,220	Apr. 6	83	22	17	761
Berg, John, Grinnell, Iowa. Fire-extinguisher for cars.....	229,854	July 13	410	113	18	77
Berg, John, Grinnell, Iowa. Fire-extinguisher for railway-cars.....	235,847	Dec. 28	988	274	18	1469
Bergan, John A., assignor of one-half interest to W. G. Farnsworth, Millbury, Mass. Loom-shuttle.....	232,874	Oct. 5	98	26	18	754
Bergen, Garret. (See Wright, Rufus, assignor.) (Reissue.)						
Bergen, Garret, Brooklyn, N. Y. Back and brace for calendars, &c.....	230,170	July 20	777	217	18	144
Berger, Jean M., St. Etienne, France. Magazine fire-arm.....	233,466	Oct. 19	842	232	18	892
Berger, John J., Brooklyn, N. Y. Perforating-stamp.....	226,962	Apr. 27	975	271	17	939
Berger, Lewis W., Canal Winchester, Ohio. Fence.....	232,440	Sept. 21	692	191	18	653
Berger, Mari, New York, N. Y. Liniment.....	228,026	May 25	1105		17	1188
Berghaus, August, Brügge, Prussia, Germany. Handle attachment for agricultural and like implements.....	235,408	Dec. 14	430	121	18	1361
Bergman, Frank A. (See Mason and Bergman.)						
Bergmann, John, Pittsburg, Pa. Crucible-furnace.....	226,828	Apr. 27	813	227	17	914
Bergmann, Sigmund, New York, N. Y. Device for adjusting the armatures of electro-magnets.....	233,967	Nov. 2	171	44	18	1014
Bergmann, Sigmund, New York, N. Y. Electrical switch-board.....	233,968	Nov. 2	172	44	18	1014
Bergmann, Sigmund, New York, N. Y. Telephone support and switch.....	235,988	Dec. 28	1158	322	18	1497
Bergquest, Frank, Minneapolis, Minn. Rotary engine.....	226,829	Apr. 27	815	227	17	914
Bergqvist, Axel F., assignor to himself and D. Locke, Fairfield, Iowa. Sulky-plow.....	234,743	Nov. 23	1153	310	18	1200
Bergstresser, Samuel, Philadelphia, Pa. Can for paints, &c.....	226,266	Apr. 6	134	38	17	750
Bergstrom, Henry, assignor of one-half interest to L. F. Hubbard, Red Wing, Minn. Feed-water apparatus for steam-boilers.....	226,031	Mar. 30	1252	353	17	711
Berkey, John, and W. F. Keller, Easton, Pa. Combined burglar-alarm and door-bell.....	224,268	Feb. 10	342	99	17	280
Berkey, Julius, Grand Rapids, Mich. Ornamentation of furniture-marble.....	225,505	Mar. 16	622	182	17	554
Berkholz, John, assignor of one-half interest to J. P. Hall, Philadelphia, Pa. Clutching and releasing device for shafts.....	232,926	Oct. 5	158	42	18	764
Berkmyer, George, Covington, Ky., and J. J. Brown, assignors to Mosler Safe and Lock Company, Cincinnati, Ohio. Safe.....	224,990	Mar. 2	9	3	17	458
Berlew, Daniel, Springfield, Ohio. Feed-cup for grain-drills.....	226,963	Apr. 27	977	272	17	940
Berliner, Emile, Boston, Mass. Microphone.....	224,573	Feb. 17	700	200	17	348
Berliner, Emile, Boston, Mass. Microphone.....	225,700	Mar. 23	966	278	17	652
Berliner, Emile, Boston, Mass. Electric telephone.....	233,969	Nov. 2	173	44	18	1015
Berliner, Emile, Boston, Mass. Microphone.....	234,744	Nov. 23	1154	311	18	1201



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Berliner, Emile, Boston, Mass. Photophonic transmitter.....	235,120	Dec. 7	67	20	18	1292
Berliner, Emile, assignor to National Bell Telephone Company, Boston, Mass. Telephone. (Reissue).....	9,499	Dec. 14	686	196	18	1403
Berney, Alfred, Boston, Mass., assignor, by mesne assignments, to Globe Company, Hartford, Conn. Spark-arrester for locomotives. (Reissue).....	9,409	Oct. 12	650	179	18	854
Bernhardt, Friedrich, Fischendorf, Saxony. Wringing-machine.....	226,647	Apr. 20	606	169	17	868
Berrian, Anna L. (See Brock, William F., assignor.).....						
Berridge, Thomas, Sturgis, Mich. Hand-stamp.....	228,243	June 1	99	30	17	1242
Berry, Charles E., Cambridge, assignor to himself and J. W. Regan, Boston, Mass. Harness.....	234,519	Nov. 16	855	228	18	1145
Berry, Charles E., Cambridge, assignor to himself and J. W. Regan, Boston, Mass. Suspended swinging harness.....	234,520	Nov. 16	856	229	18	1146
Berry, F. E. (See Putman, John, assignor.).....						
Berry, Frederic E. (See Manlove, George W., Jr., assignor.).....						
Berry, Frederic E., and J. Putman, Rushville, Ill. Check-rower.....	226,700	Apr. 20	661	184	17	878
Berry, Henry. (See Miller and Berry.).....						
Berry, Henry, Birmingham, Conn. Waiter.....	224,632	Feb. 17	769	218	17	359
Berry, Rodolph. (See Garrigus, Lewis, assignor.).....						
Berry, Thomas, North Fork, Ky. Music-leaf turner.....	224,861	Feb. 24	1051	{ 299 } 300	17	421
Berry, William H., Baltimore, Md. Reading-rest.....	223,271	Jan. 6	75	19	17	15
Berry, William T., Maysville, Ky. Letter-sheet and envelope. (Reissue.).....	9,171	Apr. 27	1139	312	17	965
Berryhill, Thomas P., and W. D. Vaughn, Carrollton, Mo. Heating-stove.....	329,082	June 22	1132	308	17	1424
Berryman, Craton, Sylvester, Wis. Corn-planter.....	229,516	July 6	5	2	18	9
Berstler, George W. (See Hendrickson and Berstler.).....						
Bertermann, Herman L., Baltimore, Md. Cutter-head.....	227,407	May 11	373	110	17	1050
Berthiaume, Louis, St. Paul, Minn. Sulky plow.....	225,207	Mar. 9	266	76	17	515
Berthoud, Edouard E., Cortaillod, and A. F. Borel, Boudry, Neuchatel, Switzerland. Machine for insulating telegraph-wires.....	233,970	Nov. 2	174	44	18	1015
Bertin, Jacques E., Paris, France. Sewing-machine.....	225,553	Mar. 16	681	199	17	594
Berzine Philip, Williamson, N. Y. Vegetable-slicer.....	224,631	Feb. 17	768	217	17	359
Besse, Allen, <i>et al.</i> (See Bayliff and Harrod, assignors.) (Reissue.).....						
Bessemer Steel Company, (limited.) (See Reese, Jacob, assignor.).....						
Best, Jacob N., Denver, Colo. Car-coupling.....	233,971	Nov. 2	176	45	18	1015
Best, John E., and W. E. Higgins, Arlington Heights, Ill. Thill-coupling jack.....	226,020	Mar. 30	1252	353	17	711
Bestwick, John, Dedham, Mass. Hose-pipe.....	231,470	Aug. 24	1005	283	18	431
Betjemann, John, 36 and 38 Pentonville Road, England. Lock.....	224,380	Feb. 10	471	135	17	300
Bettrice, Myers S., Attica, Ind. Sod-cutter.....	225,324	Mar. 9	417	121	17	539
Bettridge, Abraham, Racine, Wis. Faucet-hole closer.....	231,986	Sept. 7	139	36	18	546
Betts, Charles L., assignor of one-half interest to L. F. Betts, Chicago, Ill. Air-tight can.....	232,925	Oct. 5	156	42	18	764
Betts, Charles L., assignor of one-half interest to L. F. Betts, Chicago, Ill. Creaming-can.....	232,927	Oct. 5	158	42	18	764
Betts, Jacob, New York, N. Y. Suspender-end.....	226,267	Apr. 6	135	38	17	770
Betts, Lewis F. (See Betts, Charles L., assignor.).....						
Betts, Lewis F., assignor of one-half interest to J. S. Dennis and H. N. Wheeler, Chicago, Ill. Nozzle for cans and other vessels.....	231,144	Aug. 17	636	180	18	364
Bevil, Henry H., Indianapolis, Ind. Windmill.....	226,265	Apr. 6	133	37	17	769
Bevin Brothers Manufacturing Company. (See Bevin, Chauncey G., assignor.).....						
Bevin, Chauncey G., assignor to Bevin Brothers Manufacturing Company, East Hampton, Conn. Strap for sleigh-bells.....	228,508	June 8	418	114	17	1302
Berins, Seth H., E. P. Barker, and W. H. Phillips, New York, N. Y. Hydraulic elevator.....	223,272	Jan. 6	76	19	17	15
Berins, Seth H., and W. H. Phillips, New York, N. Y. Elevator.....	224,574	Feb. 17	701	200	17	349
Beyer, August, New York, N. Y. Fireman's suit.....	232,233	Sept. 14	424	118	18	603
Bickerton, Thomas, Lawrence, Kans. Hand corn-planter.....	226,701	Apr. 20	663	184	17	878
Bickerton, Thomas, Lawrence, Kans. Fire-escape.....	232,234	Sept. 14	426	118	18	603
Bickham, Ycatman. (See Wright, Charles, assignor.).....						
Bicknell, Emory O., Boston, Mass. Envelope.....	227,721	May 18	742	208	17	1119
Bicknell, George J., Grand Rapids, Mich. Carpet-lining.....	228,168	June 1	9	3	17	1228
Bicknell, Philip B., Lincoln, England. Dark-lantern.....	231,987	Sept. 7	140	36	18	546
Bidwell, Carl H., assignor to Buffalo Scale Company, Buffalo, N. Y. Scale-beam.....	229,663	July 6	175	48	18	34
Bidwell, Martin A., assignor of one-half interest to E. W. Arnold and J. G. Foulks, Sacramento, Ky. Shingle-machine.....	226,477	Apr. 13	382	108	17	822
Bihn, George, and R. Weidauer, Racine, Wis. Band-cutter.....	234,944	Nov. 30	1402	377	18	1248
Bierbauer, Jacob. (See Reimers and Bierbauer.).....						
Biernatzki, Johann A. S. (See Ade, Carl W., assignor.).....						
Bigelow, C. C., <i>et al.</i> (See Salter, John H., assignor.).....						
Bigelow, Charles D. (See Gardiner, James H., assignor.).....						
Bigelow, Charles D., Brooklyn, N. Y., assignor of one-half interest to H. M. Bigelow, Boston, Mass. Apparatus for collecting and settling dust.....	230,992	Aug. 10	464	132	18	329
Bigelow, Edmund, deceased, L. P. Bigelow, administratrix and assignor, by mesne assignments, to J. Matthews, New York, N. Y. Liquid-cooler for cooling liquids under pressure. (Reissue).....	9,272	June 29	1637	451	17	1502
Bigelow, Edmund, deceased, L. P. Bigelow, administratrix and assignor, by mesne assignments, to J. Matthews, New York, N. Y. Liquid-cooler for cooling liquids under pressure. (Reissue).....	9,273	June 29	1638	451	17	1502
Bigelow, Edmund, deceased, L. P. Bigelow, administratrix and assignor, by mesne assignments, to J. Matthews, New York, N. Y. Liquid-cooler for cooling liquids under pressure. (Reissue).....	9,274	June 29	1639	451	17	1502
Bigelow, Everett W., Boston, Mass. Corset.....	228,725	June 15	705	194	17	1355
Bigelow, George E., Geneva, Nehr. Water-elevator.....	224,862	Feb. 24	1052	300	17	422
Bigelow, Henry M. (See Bigelow, Charles D., assignor.).....						
Bigelow, John, Philadelphia, Pa. Sewing-machine. (Reissue).....	9,112	Mar. 9	557	{ 161 } 162	17	563
Bigelow, John, Philadelphia, Pa. Cut hose. (Reissue).....	9,113	Mar. 9	560	162	17	563
Bigelow, John, Philadelphia, Pa. Hat-tip.....	225,096	Mar. 2	139	40	17	480
Bigelow, Lucy P., administratrix. (See Bigelow, Edmund.) (Reissue.).....						
Bigeon, Charles, Cincinnati, Ohio. Telegraph-insulator.....	234,523	Nov. 16	861	230	18	1147
Bigger, L. A., <i>et al.</i> (See Center, Joshua C., assignor.).....						
Bigsby, Arthur L. and C. L., Trenton, Mo. Loom.....	234,521	Nov. 16	857	220	18	1146
Bigsby, Charles L. (See Bigsby, Arthur L. and C. L.).....						
Bihn, George F., and R. Heerlein, assignors to Pennsylvania Salt Manufacturing Company, Philadelphia, Pa. Manufacture of aluminous cake.....	233,916	Nov. 2	102	.....	18	1003
Bihn, George F., assignor to Pennsylvania Salt Manufacturing Company, Philadelphia, Pa. Manufacture of white aluminous cake.....	234,704	Nov. 23	1106	.....	18	1193

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Bill, Edward L. (See Ewing and Bill.)						
Bill, Horatio N., Willimantic, Conn. Fire-kindlings and machine for manufacturing the same	229,945	July 13	509	141	18	92
Billings, Clark E., Warren, Vt. Latch	231,260	Aug. 17	779	218	18	386
Billings, George W., assignor of one-half interest to T. R. Loomis, Cleveland, Ohio. Fount for gasoline-stoves	223,310	Jan. 6	124	31	17	23
Billings, George W., Cleveland, Ohio. Vapor-burner	229,799	July 13	346	96	18	67
Billings, Henry F., Chicago, Ill. Box-fastener	235,335	Dec. 14	348	95	18	1347
Billings, John D., New York, N. Y. Horseshoe-bar	228,974	June 22	1014	276	17	1407
Billings, William B., Philadelphia, Pa., assignor to Kerosene Lamp Heater Company, New York, N. Y. Coal-oil stove. (Reissue.)	9,121	Mar. 16	829	242	17	621
Bingham, Charles D., and C. Higham, assignors to Eames Vacuum Brake Company, Watertown, N. Y. Piston or diaphragm shell for brakes	235,336	Dec. 14	349	95	18	1347
Bingham, Jacob, Waterloo, Iowa. Grain-binder	235,325	Mar. 9	418	121	17	539
Bininger, Jacob, New York, N. Y. Apparatus for ripening coffee	232,589	Sept. 28	860	239	18	689
Binkard, Alfred, assignor to Mills & Co., Des Moines, Iowa. Device for straightening paper as delivered from printing-machines	227,344	May 11	306	89	17	1039
Binkley, John, assignor to himself and B. F. McCready, Indianapolis, Ind. Coffee and tea pot	226,899	Apr. 27	902	251	17	928
Binns, Charles H., et al. (See Steel, Robert, assignor.)						
Binns, Robert, South Windham, Conn. Machine for trimming and slitting paper	225,046	Mar. 2	86	23	17	470
Birch, George A., East Greenbush, N. Y. Scraper	231,645	Aug. 31	1218	342	18	470
Birch, John S., Orange, N. J. Key-ring	226,702	Apr. 20	664	185	17	878
Birch, John S., Orange, N. J. Holding-tool	228,860	June 15	873	238	17	1378
Birch, John S., Orange, N. J. Self-adjusting watch-key. (Reissue.)	9,310	July 20	1046	296	18	187
Birkenstadt, Henry, assignor to E. Friedmann, New York, N. Y. Fan	229,361	June 29	1457	401	17	1477
Bird, Joshua W., et al. (See Barnes, Amos, assignor.)						
Birdsall, Edgar M., Penn Yan, N. Y. Piston for steam-engines	225,555	Mar. 16	683	200	17	594
Birdseye, Isaac W., Birmingham, Conn. Corset	226,268	Apr. 6	136	38	17	770
Birdseye, Isaac W., Birmingham, Conn. Corset	233,467	Oct. 19	844	232	18	892
Birdseye, Isaac W., Birmingham, Conn. Corset	235,727	Dec. 21	824	231	18	1433
Birge, William H., Franklin, Pa. Oil-tank	234,745	Nov. 23	1155	311	18	1201
Birkenhead, John. (See Howland and Lawton, assignors.)						
Birkenhead, John, Mansfield, Mass. Mechanism for supporting the spindles of ring-spinning frames	234,522	Nov. 16	859	229	18	1146
Birkenhead, John, Mansfield, Mass. Spindle-bearing for spinning-machines. (Reissue.)	9,474	Nov. 23	1276	342	18	1221
Bisbee, Endicott & Co. (See Renshaw, David, assignor.)						
Bisbee, Randall, New York, N. Y. Metallic-brush machine	227,952	May 25	1021	292	17	1175
Biscaccianti, Luigi, Rome, Italy. Friction-gear	230,884	Aug. 10	346	100	18	311
Bishop, Clement B., New York, N. Y., assignor to himself, J. S. Carrow, Philadelphia, Pa., and W. D. Carrow, New York, N. Y. Bracelet	227,476	May 11	453	130	17	1063
Bishop, Clement B., New York, N. Y. Bracelet	229,360	June 29	1456	400	17	1477
Bishop, Henry, Baltimore, Md. Bird-cage	228,438	June 8	329	90	17	1289
Bishop, Henry, Baltimore, Md. Perch for bird-cages	230,993	Aug. 10	465	132	18	329
Bishop, Kirk D. (See Class, Albert G., assignor.)						
Bishop, Kirk D. (See Class, William F., assignor.)						
Bishop, Kirk D., and A. G. Class, Cleveland, Ohio, assignors to said Bishop. Pressure-regulator for air-compressors	229,083	June 22	1134	309	17	1424
Bishop, Robert H., Liverpool Road, Islington, county of Middlesex, England. Buckle	235,200	Dec. 7	174	47	18	1310
Bishop, Thomas B., Boston, assignor of one-fourth interest to O. Sherman, Weymouth, Mass. Label-holder	225,045	Mar. 2	85	23	17	470
Bissell, Daniel M., and F. H. Littlefield, Boston, Mass. Safety attachment for elevators	226,478	Apr. 13	384	109	17	823
Bissell, David, assignor to himself and J. A. Foster, Detroit, Mich. Bevel-square	228,027	May 25	1106	315	17	1188
Bissell Manufacturing Company. (See Robbins, Henry R., assignor.)						
Bissell, Melville R., Grand Rapids, Mich. Carpet-sweeper	233,137	Oct. 12	425	117	18	814
Bissell, Melville R., Grand Rapids, Mich. Carpet-sweeper	233,596	Oct. 26	1015	282	18	931
Bissell, Thelus M., South Bend, Ind. Mold for casting metals on a chill	227,607	May 18	602	173	17	1099
Bissell, Thomas A. (See McLaughlin, John C., assignor.)						
Bissell, William C. P., Chicago, Ill. Smoke and gas consuming furnace	234,385	Nov. 16	702	189	18	1120
Bissinger, Gustav, assignor to Maschinen Fabrik Augsburg, Augsburg, Bavaria. Rotary printing-machine	223,981	Feb. 3	9	3, 4	17	204
Bittenbring, Emil, Hartford, Conn. Leader-pipe	227,208	May 4	144	42	17	1001
Bitting, Joseph N., Camden, N. J. Bearing for shafts and axles	230,994	Aug. 10	466	132	18	329
Bitz, Charles F., assignor to Winchester Repeating Arms Company, New Haven, Conn. Machine for uncupping cartridge-shells	233,317	Oct. 19	666	183	18	863
Bixby, William, Syracuse, and A. Brooks, Binghamton, N. Y. Stretcher for carpet-cleaners	235,848	Dec. 28	989	274	18	1470
Black & Co., L. (See Landsberg, Albert, assignor.)						
Black, Edward G. (See Tompkins, Isaac and A. G., assignors.) (Reissue.)						
Black & Germer. (See Moulton, Charles G., assignor.)						
Black & Germer. (See Moulton and Marquardt, assignors.)						
Black, James M., assignor to S. B. Sherer, Chicago, Ill. Vise	227,210	May 4	146	42	17	1001
Black, Jane B. D., Green Hill, Tex. Marking the keys of key-boards for musical instruments	229,365	June 29	1460	402	17	1478
Black, John. (See Cobb, Oliver P., assignor.)						
Black, Rufinus M., et al. (See Wilson, Gandy, and Shugert, assignors.)						
Black, Thomas B., Stonham, Mass. Axle-turner and screw-cutter	230,395	July 27	1080	304	18	199
Black, William F., Cleveland, Ohio. Vehicle foot-rail	225,097	Mar. 2	140	40	17	480
Blackall, Robert C. (See McGovern, Edward, assignor.)						
Blackall, Robert C., et al. (See Putnam, George W., assignor.)						
Blacker, Mary W., Brentwood, N. Y. Strap for baby-chairs	229,946	July 13	510	141	18	93
Blackford, Nannie B. (See Brooks, Franklin W., assignor.)						
Blackler, Ward H., New York, N. Y. Window-chair	226,156	Apr. 6	9	2	17	748
Blackledge, Alvin N., Rushville, Ind. Road-scraper	226,270	Apr. 6	137	39	17	770
Blackledge, Robert, assignor to himself, A. J. Battles, and G. Wilcox, trustees, Enfield, Conn. Method and apparatus for destroying fire-damp in mines	232,443	Sept. 21	697	192	18	653
Blackman, Albert L., Nashville, Tenn. Vessel and machinery for aerial navigation	224,510	Feb. 17	620	180	17	336
Blackman, Otis L., Evansville, Wis. Rotary attachment for windmills, &c.	232,875	Oct. 5	99	27	18	754
Blackmer, N. B. (See Powers, Jay W., assignor.)						
Blackwell, Ezra B., Newton, Mass. Starching-machine	231,528	Aug. 24	1071	301	18	440
Blades, Tristram W., Point Pleasant, W. Va. Indicator	226,269	Apr. 6	136	38	17	770
Blair, Frank L., Allegheny, Pa. Machine for cutting cork	227,876	May 25	929	266	17	1161
Blair, Frank L., Allegheny, Pa. Machine for tapering corks	228,169	June 1	10	4	17	1228
Blair, Frank L., Allegheny, Pa. Cork-cutting machine	228,439	June 8	330	90	17	1289
Blair, George, Prescott, Ontario, Canada. Stove-pipe collar	225,729	Dec. 21	825	231	18	1434

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Blair, George W. (See Calvert and Blair.)						
Blair, Joseph N., Slippery Rock, Pa. Car-coupling.	235,723	Dec. 21	825	231	18	1433
Blair, Llewellyn P., assignor of one-half interest to W. D. Dowe, Wilmington, Del. Gas-governor	226,479	Apr. 13	385	109	17	823
Blair, Milton S., Warsaw, Iowa. Harrow	224,813	Feb. 24	1000	233	17	413
Blair, Thomas H., Franklin, Mass. Photographic apparatus.	226,022	Mar. 30	1253	354	17	711
Blaisdell, Arlond H., assignor to J. H. Wells, Vineland, N. J. Centrifugal machine.	226,271	Apr. 6	138	39	17	771
Blaisdell, Vasco M., and C. A. Wright, Agawam, Mass. Automatic feed-box for animals.	235,499	Dec. 14	550	157	18	1381
Blaisdell, William S., Randolph, Vt. Bee-hive.	229,362	June 29	1457	401	17	1477
Blake, Clinton, <i>et al.</i> (See Gilchrist, William L., assignor.)						
Blake, Edward S. and H. H., Pittsburg, Pa. Ore-crushing machine.	226,964	Apr. 27	978	272	17	940
Blake, Edward S. and H. H., Pittsburg, Pa. Ore-crusher.	230,524	July 27	1227	346	18	223
Blake, Edward S. and H. H., Pittsburg, Pa. Ore-crusher frame.	232,669	Sept. 23	958	262	18	704
Blake, Francis, Weston, Mass. Individual call-bell.	232,442	Sept. 21	694	192	18	653
Blake, George W., New York, N. Y., assignor to J. T. Kelly and G. M. Jones, Pittsburg, Pa. Steam-radiator.	224,131	Feb. 3	183	52	17	234
Blake, George W., New York, N. Y., assignor to J. T. Kelly and G. M. Jones, Pittsburg, Pa. Stop-valve.	224,381	Feb. 10	472	135	17	300
Blake, George W., New York, N. Y., assignor to J. T. Kelly and G. M. Jones, Pittsburg, Pa. Machine for forming tubes.	224,382	Feb. 10	473	136	17	301
Blake, George W., Port Townsend, Wash. Ter. Horse-stopping attachment for wagons.	232,441	Sept. 21	693	191	18	653
Blake, Henry H. (See Blake, Edward S. and H. H.)						
Blake, John H., Batavia, N. Y. Rotary engine.	228,861	June 15	874	238	17	1378
Blake, Lyman R., Abington, Mass., assignor, by mesne assignments, to G. McKay, trustee. Manufacture of boots and shoes. (Reissue.)	9,043	Jan. 13	515	139	17	102
Blake, Theodore A., New Haven, Conn. Stone-crusher.	223,697	Jan. 20	599	160	17	124
Blake, Thomas. (See Harrison, Charles W., assignor.)						
Blake, William B. (See Davis, Zebulon, assignor.)						
Blakely, Charles F., assignor of one-half interest to A. N. Kellogg, Chicago, Ill. Printer's form.	230,607	Aug. 3	10	3	18	248
Blakeslee, Albert J., Duquoin, Ill. Valve-movement for steam-pumps.	233,313	Oct. 19	667	184	18	864
Blakeslee, Cornelius, <i>et al.</i> (See Hotchkiss, Charles A., assignor.)						
Blakeslee, Harvey D. (See Latta, Emmet G., assignor.)						
Blakeslee, Harvey D. (See Schoenthaler, Daniel, assignor.)						
Blakeslee, Owen B., Rankin, Ill., assignor to himself and J. T. Mug, La Fayette, Ind. Lever for moving cars.	229,363	June 29	1458	401	17	1477
Blanchard, Charles H., assignor of one-third interest to C. D. Moody, St. Louis, Mo. Stove.	225,208	Mar. 9	268	77	17	516
Blanchard, Luther S. (See Blanchard, Virgil W. and L. S.)						
Blanchard, Virgil W. and L. S., Weybridge, Vt. Coffee-pot.	228,862	June 15	875	239	17	1378
Blanchet, Zulma, Epinac, France, assignor to Prescott, Scott & Co., San Francisco, Cal. Hoisting system.	235,121	Dec. 7	68	20, 21	18	1292
Blatherwick, Nelson J., assignor to S. J. McIntosh and P. Munson, Chicago, Ill. Bridle-bit attachment.	224,633	Feb. 17	769	218	17	360
Blattner, Conrad, St. Louis, Mo. Roll for troops.	234,225	Nov. 9	493	135	18	1077
Blaner, Fredrick, Chicago, Ill. Stem-winding attachment for watches.	230,995	Aug. 10	466	133	18	329
Blaydes, Edward. (See Bramhall and Blaydes.)						
Blaydes, John A., <i>et al.</i> (See Bramhall and Blaydes, assignors.)						
Blessing, Charles A., Philadelphia, Pa. Adjustable bracket.	224,863	Feb. 24	1053	300	17	422
Blessing, James H., assignor to Albany Steam Trap Company, Albany, N. Y. Steam-trap.	234,386	Nov. 16	703	189	18	1120
Blewett, George L., Richardson, Tex. Spark-extinguisher.	225,326	Mar. 9	419	121	17	539
Bleyley, Albert T., Conception, Mo. Car-coupling.	231,988	Sept. 7	141	37	18	546
Blickensderfer, Ulric, Erie, Pa. Ditching-machine.	227,209	May 4	145	42	17	1001
Bliesner, William, St. Louis, Mo. Burner for gas-stoves.	225,740	Mar. 23	901	262	17	642
Blinn, Erastus E., assignor to C. E. Eastman, Minneapolis, Minn. Machine for making conveyer-flights.	231,892	Sept. 7	18	4	18	527
Blinn, S. C., <i>et al.</i> (See Ward, Alexander F., assignor.)						
Blinsinger, George F., assignor of one-third interest to E. L. Jones, Baltimore, Md. Refrigerating apparatus for hydrants and street-fountains.	225,098	Mar. 2	140	40	17	450
Bliss, Eliphalet W., <i>et al.</i> (See Jordan, Edmund, assignor.)						
Bliss, Francis D. (See Kritch, Jacob, assignor.)						
Bliss, Francis D., New Haven, Conn. Carriage-axle.	229,364	June 29	1459	401	17	1477
Bliss, Francis D., New Haven, Conn., assignor of one-half to J. Kritch, Cleveland, Ohio. Machine for machining axles.	235,929	Dec. 28	1089	301	18	1485
Bliss, George H., Pittsfield, Mass. Telephonic signaling apparatus.	229,469	Jan. 13	321	86	17	70
Bliss, George H., Pittsfield, Mass. Signaling apparatus for telephone-lines.	225,327	Mar. 9	420	122	17	539
Bliss, George W., assignor to W. T. Bliss and E. C. Ford, Mansfield, Ohio. Scale-beam.	231,989	Sept. 7	142	37	18	547
Bliss, Henry C., West Springfield, Mass. Telephone call-bell.	226,480	Apr. 13	386	109	17	823
Bliss, Henry C., West Springfield, Mass. Electrical indicator for elevators.	234,945	Nov. 30	1404	377, 378	18	1248
Bliss, James F., <i>et al.</i> (See Proctor, David R., assignor.)						
Bliss, Jonathan, Jersey City, N. J., and F. O. Badger, Brooklyn, assignors to W. L. Palmer, New York, N. Y. Manufacture of buttons and other articles.	225,556	Mar. 16	684	.....	17	595
Bliss, William T., <i>et al.</i> (See Bliss, George W., assignor.)						
Bliven, Charles, Norfolk, Va. Saw-mill log-carriage.	229,084	June 22	1135	309	17	1425
Bloch, Benoit, Brooklyn, N. Y. Trunk.	223,983	Feb. 3	13	5	17	205
Blocher, John C. (See Arser and Blocher.)						
Block, Siegfried, Boston, Mass. Lathe-chuck for turning polygonal bodies.	229,855	July 13	411	114	18	77
Blocker, James M., Brookston, Tex. Seed-separating machine.	234,946	Nov. 30	1407	378	18	1248
Blodgett, Gardner S., <i>et al.</i> (See Johnson, Elmore, assignor.)						
Blodgett, William W., and J. H. Smits, Brookfield Centre, Wis. Cultivator.	223,982	Feb. 3	12	5	17	205
Bloemeke, Bernard. (See Larter, Robert, assignor.)						
Blood, Benjamin, Amsterdam, N. Y. Reaper.	233,468	Oct. 19	844	232	18	892
Blood, Benjamin, Amsterdam, N. Y. Swathing-reaper.	234,651	Nov. 23	1044	281	18	1154
Blood, Charles S., <i>et al.</i> (See Cornell, John W., assignor.)						
Blood, Edwin J., Chicago, Ill. Tug-adjuster.	231,646	Aug. 31	1219	342	18	470
Blood, Edwin J., Chicago, Ill. Tug-adjuster.	231,647	Aug. 31	1219	342	18	471
Blood, Henry F., <i>et al.</i> (See Cornell, John W., assignor.)						
Bloom, Samuel, San Francisco, Cal. Tanning and preparing leather.	230,225	July 20	841	.....	18	154
Bloomer, Charles G., Cranston, R. I. Shirt-stud.	230,608	Aug. 3	11	3	18	249
Blowney, Henry J., deceased, assignor of one-half interest to W. G. George and G. Pfeiffer, South Bend, Ind.; L. Blowney, administratrix. Sign.	223,698	Jan. 29	599	160	17	124
Blowney, Lavinia, administratrix. (See Blowney, Henry J.)						
Blue, Dennis S., Fremont, Ohio. Thill-coupling.	234,746	Nov. 23	1156	311	18	1201
Blum, Christian G., and J. Schoettle, Collinsville, Ill. Die and former.	225,047	Mar. 2	88	24	17	471



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Blum, Joseph, Chicago, Ill. Brick-kiln.....	231,893	Sept. 7	19	4	18	527
Blumenberg, Israel R., Washington, D. C. Compound for coverings and joint-packings.....	230,996	Aug. 10	467	.....	18	329
Blumenberg, Israel R. (See Wood, William P. and W. T., assignors.) (Reissue.)						
Bluntach, Alexander, Rochester, N. Y. Corset-steel.....	232,876	Oct. 5	100	27	18	754
Blydenburgh, Charles M., Riverhead, N. Y. Vehicle-spring.....	225,965	Mar. 30	1186	337	17	701
Board of Managers of St. Paul's Roman Catholic Orphan Asylum <i>et al.</i> (See Kittell, Ferdinand A., assignor.)						
Boardman, Irving R. L., Snedekerville, Pa. Tongs.....	230,460	July 27	1162	328	18	212
Boardman, Theron, Buffalo, N. Y. Harness.....	225,328	Mar. 9	421	122	17	540
Boche, Louis, <i>et al.</i> (See Konrad, William, assignor.)						
Bocker, Edward, assignor to himself and J. A. Steurer, New York, N. Y. Automatic fire-extinguisher.....	230,732	Aug. 3	154	46	18	272
Bocklet, Albert, Cincinnati, Ohio. Water-meter.....	226,023	Mar. 30	1256	354	17	712
Boda, Abia Z., Columbus, Ohio. Rail for vehicle-dashes.....	226,025	Mar. 30	1258	354	17	712
Boda, Abia Z., Columbus, Ohio. Vehicle-dash.....	229,582	July 6	87	23	18	22
Boda, Abia Z., Columbus, Ohio. Vehicle-dash.....	229,583	July 6	88	24	18	22
Bodfish, Sumner H., Washington, D. C. Tip for electric switch-cords.....	227,722	May 18	743	208	17	1119
Bodge, John W. (See Burrell, Miner, and Bodge.)						
Bodine, Horatio R., Springfield township, (Zanesville P. O.,) Muskingum county, Ohio. Manufacture of pottery-ware.....	232,331	Sept. 21	554	.....	18	630
Bodurtha, Charles H., Delaware, Ohio. Manufacture of artificial birds.....	232,928	Oct. 5	160	42	18	764
Bodwell, Joseph R., <i>et al.</i> (See Gerald, Amos F., assignor.)						
Boehmer, Charles D. and O. J., Wright City, Mo. Hand corn-planter.....	223,824	Jan. 27	768	205	17	162
Boehmer, Otto J. (See Boehmer, Charles D. and O. J.)						
Boeklen, Reinhold. (See Heywood and Boeklen.)						
Boeklen, Reinhold, assignor to Carburetted Air Gas Company, Boston, Mass. Fluid-pressure regulator.....	224,575	Feb. 17	762	200	17	349
Boeklen, Reinhold, assignor to Carburetted Air Gas Company, Boston, Mass. Illumination of railway-cars.....	224,576	Feb. 17	763	200	17	349
Boerner, Wunibald R., Chicago, Ill. Motor.....	233,319	Oct. 19	668	181	18	864
Boerstler, Harry, Hamburg, Ohio. Vegetable-cutter.....	225,681	Mar. 23	836	243	17	631
Boerstler, Harry, Hamburg, Ohio. Combined boring, sawing, grinding, and rabbeting machine.....	229,234	June 29	1291	354	17	1456
Boettcher, F. W., Gustav, Watertown, Wis. Combined lathe and planer.....	229,800	July 13	347	96, 97	18	68
Bogart, Abraham L. (See Packard, Henry F., assignor.)						
Bogart, Albert H., assignor to Tiffany & Co., New York, N. Y. Plate-printing machine.....	224,132	Feb. 3	184	53	17	234
Bogert, Henry, Brooklyn, N. Y. Machine for making carpet-linings.....	226,272	Apr. 6	139	39	17	771
Bogle, James S., Springfield, Ohio. Grain-drill.....	223,470	Jan. 13	324	86, 87	17	70
Bogue, Oswald A. (See Burns, Morgan, assignor.)						
Bohannon, George W. (See Wineman and Bohannon.)						
Böbel, Heinrich, Spandan, Prussia, Germany. Fire-extinguisher.....	223,984	Feb. 3	14	5	17	205
Bohler, John J., and E. S. Plimney, Westfield, Mass. Whip-snap.....	262,670	Sept. 28	959	263	18	705
Bohmer, George, Chicago, Ill. Extension-chandelier.....	228,244	June 1	100	30	17	1243
Bohon, John T. (See Hedrick, George T., assignor.)						
Boice, Joseph C. W., Lincoln, Nebr. Animal-trap.....	233,917	Nov. 2	103	27	18	1003
Boileau, Etienne. (See Filley and Boileau.)						
Bois, James M., Aurora, N. Y. Hydraulic air-compressing apparatus.....	227,877	May 25	930	266	17	1162
Boland, William J., Ferrysburg, Mich. Steam-actuated valve.....	234,649	Nov. 23	1042	280	18	1183
Bold, Fred, assignor of two-thirds interest to G. Bullock and G. M. Whiteside, St. Louis, Mo. Lubricator.....	230,691	Aug. 3	110	32	18	264
Bold, Fred, assignor of two-thirds interest to G. Bullock and G. M. Whiteside, St. Louis, Mo. Piston-rod stuffing-box.....	232,106	Sept. 14	279	78	18	577
Boles, Warren H., and G. B. Hall, Fort Plain, N. Y. Combined umbrella and cane.....	234,165	Nov. 9	415	113	18	1062
Bolette, Jean S., Pepinster, Belgium. Fleece-dividing attachment for condensers for carding-machines.....	227,671	May 18	676	192	17	1110
Bollinger, John B., assignor to H. W. Ross, Jackson, Mich. Device for operating churns.....	223,700	Jan. 20	601	161	17	124
Bolles, William W., Toledo, Ohio. Adjustable window-cornice.....	223,699	Jan. 20	600	160	17	124
Bolli, Emanuel. (See Espérandieu, Emil F., assignor.)						
Bollinger, Ephraim, Neosho Rapids, Kans. Hay-loader.....	224,634	Feb. 17	770	218	17	360
Bollinger, Samuel A., Patterson, Ohio. Harrow.....	228,303	June 1	172	48	17	1254
Bolte, Frank H., assignor of one-half interest to J. Bolte, Columbus, Wis. Wind-wheel.....	229,580	July 6	86	23	18	22
Bolte, Joseph. (See Bolte, Frank H., assignor.)						
Bolton, Charles E., Cleveland, Ohio. Clamp for holding paper boxes while drying.....	230,855	Aug. 10	314	92	18	306
Bolton, David. (See Bolton, John, assignor.)						
Bolton, George W., Fredericksburg, Iowa. Milk-can skimmer.....	224,864	Feb. 24	1055	301	17	422
Bolton, John, Putnamville, assignor of one-half interest to D. Bolton, Coal City, Ind. Remedy for hog-cholera.....	230,997	Aug. 10	468	.....	18	329
Bolton, John E., Paterson, N. J. Machine for beating and washing silk, &c.....	223,430	Jan. 13	275	73	17	63
Bolton, Newton H., <i>et al.</i> (See Rivet, Louis, assignor.)						
Bolton, Samuel S., Big Rapids, Mich. Attachment to spoon-handles.....	230,461	July 27	1163	328	18	212
Boman, Claes W., assignor to J. Reckendorfer, New York, N. Y. Lead and crayon holder.....	223,122	Dec. 7	70	21	18	1293
Bommer, Lorenz, Brooklyn, N. Y. Spring-hinge.....	228,304	June 1	172	48	17	1254
Bonaventure, Francis, New York, N. Y. Clothes-line adjuster.....	226,384	Apr. 13	269	80	17	805
Bonbrak, Lew. S., assignor of one-half interest to L. Scott, Waynesburg, Ohio. Eaves-trough.....	230,396	July 27	1081	304	18	199
Bond, George F., Troy, N. Y. Snow-scraper.....	235,201	Dec. 7	175	48	18	1310
Bond, William E., Cleveland, Ohio. Rowlock.....	234,847	Nov. 30	1291	346	18	1230
Bond, William H., Greensborough, Ind. Gate-hinge.....	235,500	Dec. 14	551	157	18	1381
Bonhack, Charles F., New York, N. Y. Friction-match.....	230,226	July 20	841	.....	18	154
Bonham, Andrew F., Seven Mile Ford, Va. Making honey-comb foundations.....	234,226	Nov. 9	495	136	18	1077
Böning, Jacob, Philadelphia, Pa. Ear-piercer.....	229,581	July 6	87	23	18	22
Bonnell, John C., Omaha, Nebr. Blank-book. (Reissue.)	9,249	June 15	992	269	17	1395
Bonsilate Company. (See Hyatt, Lockwood, and Stevens, assignors.)						
Böntgen, August, <i>et al.</i> (See Jansen, Edmund, assignor.)						
Bonwill, William G. A., Philadelphia, Pa., assignor to J. W. and J. C. White and H. M. Lewis, trustees. Electro-magnetic dental plugger. (Reissue.)	9,287	July 13	680	191	18	120
Bonzon, Albert, Santiago, Cuba. Second-hand attachment for clocks and watches.....	224,635	Feb. 17	771	218	17	360
Book Sewing Machine Company. (See Smyth, James C., assignor.)						
Booker, David, assignor to F. A. Mays, Edom, Tex. Device for elevating wagon-bodies.....	226,024	Mar. 30	1258	354	17	712
Bookwalter, Felix. (See Courtright, Silas, assignor.)						
Bookwalter, John W. (See Trump, Fuller, assignor.)						

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Boomer, George B., Mexico, and R. E. Boschert, Syracuse, N. Y. Pressure-plate for apple-grinders	225,456	Mar. 16	568	165	17	575
Boomer, George E., Mexico, and R. E. Boschert, Syracuse, N. Y. Press	233,193	Oct. 12	489	135	18	826
Boone, Alonzo T., assignor of one-half interest to G. G. Benedict, Chicago, Ill. Under-ground electric conductor	225,268	Mar. 9	330	97	17	526
Boone, Alonzo T., assignor of one-half interest to G. G. Benedict, Chicago, Ill. Lock for bottles, &c.	228,170	June 1	12	4	17	1229
Boone, Daniel, <i>et al.</i> (See Wood, Edmund L., assignor.)						
Boone, Isaac, Troy, Ohio. Ice-plow	225,791	Mar. 23	967	279	17	652
Boone, William C., Brooklyn, N. Y. Flier for spinning or twisting yarns or strands of cordage	231,471	Aug. 24	1006	283	18	431
Booram, John V. V., Brooklyn, N. Y. Apparatus for cooling cane-sugar	227,477	May 11	454	130	17	1063
Booram, John V. V., Brooklyn, N. Y. Sugar-washing process and apparatus	225,202	Dec. 7	176	48	18	1210
Booth, Dulancy & Co. (See Savage, Frank A., assignor.)						
Booth, George, Philadelphia, Pa. Water-cooler	229,664	July 6	176	49	18	34
Booth, George, Toronto, Ontario, Canada. Kettle-handle	234,227	Nov. 9	496	136	18	1077
Booth, William, Newark, N. J., assignor to Celluloid Manufacturing Company, New York, N. Y. Manufacture of combs from celluloid, &c.	223,311	Jan. 6	125	32	17	23
Bootz Manufacturing Company. (See Miller, Charles H., assignor.)						
Borchert, Henry, Aurora, Minn. One-wheel plow	227,723	May 18	743	203	17	1119
Borchert, Henry, Aurora, Minn. One-wheel plow	233,722	Oct. 26	1157	322	18	954
Borders, Augustin M. (See Smith, Hilliard B., assignor.)						
Bordwell, Joseph, assignor to D. S. Morgan, Brockport, N. Y. Harvester	229,584	July 6	89	24	18	22
Borel, Arnold F. (See Berthoud and Borel.)						
Boren, Nicholas, Jr., Hanbstadt, Ind. Churn-power	229,947	July 13	511	141	18	93
Boric, Henry J., San Francisco, Cal., assignor of one-fifteenth to T. J. W. Robertson, Washington, D. C. Perforated soap	235,730	Dec. 21	826	231	18	1434
Borland, Andrew J., Donnellson, Iowa. Rotary churn. (Reissue)	9,338	Aug. 10	624	176	18	355
Borland, Joseph, Mars P. O., Pa. Shoe-calk sharpener	228,975	June 22	1015	276	17	1407
Bornemann, Rudolph W., New York, N. Y. Cover for slop-jars, &c.	227,091	May 4	1	1	17	979
Borsch, Henry, assignor of one-half to J. L. Borsch, Philadelphia, Pa. Eyeglass	235,930	Dec. 23	1091	302	18	1486
Borsch, John L. (See Borsch, Henry, assignor.)						
Borst, Valentin, New York, N. Y. Garbage-receptacle	224,636	Feb. 17	773	219	17	360
Borthwick, John A., Atlantic City, N. J. Ice-cream freezer	230,856	Aug. 10	315	92	18	306
Bortree, Lewis S., Toledo, Ohio, assignor of one-half to Bortree Manufacturing Company, Jackson, Mich. Corset	235,989	Dec. 28	1160	322	18	1497
Bortree Manufacturing Company. (See Bortree, Lewis S., assignor.)						
Bortree, Moses K., assignor of one-half interest to C. W. Higbee, Jackson, Mich. Corset	230,462	July 27	1163	328	18	212
Bortree, Moses K., assignor of one-half interest to C. W. Higbee, Jackson, Mich. Corset-spring	231,472	Aug. 24	1007	283	18	431
Borzell, William F., Philadelphia, Pa. Pantaloon	226,966	Apr. 27	932	273	17	941
Bosch, Adam, Newark, N. J. Electro-magnetic annunciator	225,099	Mar. 2	141	40	17	481
Boschert, Rufus E. (See Boomer and Boschert.)						
Boss, Henry, assignor of one-half interest to W. H. Gergerie, Joplin, Mo. Curtain-fixture	229,605	July 6	176	49	18	35
Bossel, August P. J., Virginia City, Nev. Bench-plane	231,990	Sept. 7	143	37	18	547
Bossert, Philip, Lebeck, Mo. Saw-filing machine	234,228	Nov. 9	496	136	18	1078
Boston, Robert N., Chestertown, Md. Combined corn-planter and fertilizer-distributor	232,444	Sept. 21	698	193	18	653
Bostwick, Jabez A. (See Brock, William H., assignor.)						
Bostwick, Oliver F. (See Cooper and Bostwick.)						
Bostwick, Seymour A., assignor of one-half interest to H. Longec, Chelsea, Mass. Combined drill and bit-stock	225,682	Mar. 23	837	243	17	631
Boswell, Nathaniel R. (See Hudson, M. Barney, assignor.)						
Bosworth, Charles F., Milford, Conn. Machine for sewing shoes	226,481	Apr. 13	388	{ 109 110 }	{ 17 17 }	{ 823 823 }
Bosworth, George S., Troy, N. Y. Boiler-furnace	228,976	June 22	1015	276	17	1407
Bosworth, George S., Troy, N. Y. Boiler-furnace	233,194	Oct. 12	489	135	18	826
Botsford, Albert, Detroit, Mich. Paper cap	232,332	Sept. 21	554	153	18	631
Bott, Arthur. (See Van Benthuyssen and Bott.)						
Bott, Joseph E., assignor of one-half interest to J. R. Flinn, Wilmington, Del. Automatic feed-water regulator	233,199	Oct. 12	425	{ 136 137 }	{ 18 18 }	{ 827 827 }
Bottger, Augustus, New York, N. Y. Vent for barrels	228,440	June 8	331	91	17	1290
Bottomley, Thomas H., Capac, Mich. Door-hanger	223,985	Feb. 3	15	6	17	205
Botts, Robert H., Coloma, Mo. Washing-machine	234,848	Nov. 30	1292	347	18	1230
Bottum, Elias H., <i>et al.</i> (See Everitt and Avery, assignors.) (Reissue.)						
Bouchard, John, Chicago, Ill. Hog-scrapping machine	235,731	Dec. 21	827	232	18	1434
Boucher, Ulysse, Paris, France. Apparatus for decorticating and cleaning grain	225,329	Mar. 9	422	122	17	540
Boughton, Enos G., Pittsford, N. Y. Fruit-drying apparatus	231,991	Sept. 7	144	37	18	547
Boughton, Henry J., Albany, Oreg. Medicinal compound	233,063	Oct. 12	332	92	18	799
Boughton, William, Caledonia, Ohio. Pole for vehicles	226,830	Apr. 27	816	227	17	914
Boul, Christostomus, Ogles Station, Ill. Plow	232,877	Oct. 5	101	27	18	755
Bouldin, David W. (See Tichenor, Anson C., assignor.)						
Bourke, Martin, Youngstown, Ohio. Combined sash-fastener and burglar-alarm	229,856	July 13	412	114	18	72
Bourn, Augustus O. (See Bourn, John F., assignor.)						
Bourn, John F., Providence, assignor of one-half interest to A. O. Bourn, Bristol, R. I. Device for controlling the fly-wheels of sewing-machines	232,929	Oct. 5	161	43	18	764
Bourne, Edward, Allegheny, Pa. Washing-machine	235,849	Dec. 23	990	274	18	1470
Bourne, Edward, Allegheny, Pa. Meat-cutter	235,850	Dec. 23	991	275	18	1470
Bourne, William O., New York, N. Y. Dry-ore separator	235,851	Dec. 23	992	275	18	1470
Bourquin, Charles F., Cormondrèche, Switzerland. Geographical clock-dial	230,227	July 20	842	238	18	154
Bourquin, Eugene A., New York, N. Y. Roller for corn-husking machines	223,305	June 1	173	48	17	1254
Boushey, Stephen. (See Jasper and Boushey.)						
Bovee, David W., and W. H. Palmer, Richland Centre, Wis. Cover for hay-stacks	226,900	Apr. 27	902	251	17	938
Bovee, David W., Richland Centre, Wis. Hay raker and loader	231,391	Aug. 24	923	260	18	417
Bovey, George C., Columbus, assignor to G. B. Kerper, Cincinnati, Ohio. Street-car heater	227,345	May 11	307	89	17	1039
Bovey, George C., Columbus, Ohio. Folding commode	234,230	Nov. 9	498	137	18	1078
Bovey, George C., Chillicothe, Ohio. Combined milk-bucket and stool	235,123	Dec. 7	72	21	18	1293
Bowden, Junius A., Cincinnati, Ohio. Ironing-machine	233,064	Oct. 12	333	92	18	799
Bowdoin, Frank A., Lewiston, Me. Nut warmer and preserver	235,990	Dec. 23	1161	322	18	1498
Bowen, George A., New York, assignor to himself and P. B. Hoyt, Brooklyn, N. Y. Acoustic watch	234,455	Nov. 16	782	210	18	1133
Bowen, Henry C., New York, N. Y. Apparatus for indicating the action of water-gas retorts	224,865	Feb. 24	1055	301	17	422
Bowen, Henry C., New York, N. Y. Determining the temperature and progress of distillation in gas-retorts	224,866	Feb. 24	1057	301	17	422

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Bowen, James H., Philadelphia, Pa. Toy money-box.....	226,831	Apr. 27	817	228	17	915
Bowen, James H., Philadelphia, Pa. Toy money-box.....	232,628	Sept. 23	907	250	18	697
Bowen, Jesse, Lancaster, Ohio. Bed-bottom.....	226,026	Mar. 30	1260	355	17	712
Bowen, John W., Jacksonville, Ill. Swing.....	226,482	Apr. 13	392	110	17	824
Bower, Anthony S. (See Bower, George and A. S.)						
Bower, George and A. S., St. Neots, England. Coating iron with oxide.....	234,524	Nov. 16	862	.....	18	1147
Bower, Henry, Philadelphia, Pa. Process of and apparatus for treating residuum from petroleum-refineries.....	230,171	July 20	778	217	18	144
Bower, John, Pittsburg, Pa. Paper bag.....	232,930	Oct. 5	162	43	18	764
Bowers, James, Newark, N. J. Corset.....	227,211	May 4	147	43	17	1001
Bowers, John M., assignor of one-half interest to D. S. Clark, Cambridgeport; said Bowers and Clark assignors of one-fourth interest to G. H. Burnham, Boston, Mass. Packing for piston-rods.....	226,832	Apr. 27	818	228	17	915
Bowers, Marcus M., Richmond, Va., assignor, by mesne assignments, to himself, T. M. Hiltzhimer, Jr., and E. D. Utter, executor. Reversible plow-point. (Reissue).....	9,236	June 8	679	187	17	1342
Bowers, Marcus M., Richmond, Va. Detachable plow-point.....	231,261	Aug. 17	780	218	18	386
Bowers, Sylvester J., Canandaigua, N. Y. Horse-collar fastening.....	232,590	Sept. 28	863	239	18	689
Bowers, Sylvester J., Canandaigua, N. Y. Horse-collar fastening. (Reissue).....	9,448	Nov. 9	669	182	18	1106
Bowers, William and W. H. Harrison, Newark, N. J.; said Harrison assignor to said Bowers. Motor for sewing-machines and other purposes.....	226,967	Apr. 27	982	273	17	941
Bowes, David. (See Poole and Bowes.)						
Bowker, Daniel F., Fitzwilliam, assignor of one-half interest to J. A. Wright, Keene, N. H. Coating the interior of vessels for holding oils.....	228,028	May 25	1107	.....	17	1188
Bowker, George C., Philadelphia, Pa. Joint for sheet-metal tubes.....	231,262	Aug. 17	781	218	18	387
Bowker, Hannah H., Boston, Mass. Unhitching device for stable-stalls.....	232,107	Sept. 14	279	78	18	578
Bowlby, Edward T., Dixon, Ill. Piano-forte agraffe.....	225,100	Mar. 2	142	41	17	481
Bowls, Millard M., Bowlingville, Ohio. Trace-fastener.....	223,701	Jan. 20	602	161	17	125
Bowman, Harriet F., assignor to herself and F. Kern, Mattoon, Ill. Child's stocking-suspender.....	232,671	Sept. 28	959	263	18	705
Bowman, John E., Boonsborough, Md. Washing-machine.....	234,229	Nov. 9	497	136	18	1078
Bowman, Lorenzo D., Beebe Station, Ark. Combined cotton scraper and chopper.....	226,703	Apr. 20	664	185	17	878
Bowman, Oliver O., Trenton, N. J., assignor to himself and J. Lenckel, New York, N. Y. Manufacture of seggars and other pottery-ware.....	227,408	May 11	374	110	17	1050
Bowman, William, <i>et al.</i> (See Mearns, Andrew, assignor.)						
Bown, William. (See Hughes, Joseph H., assignor.)						
Bowyer, Thomas O. (See Draper and Bowyer.)						
Box, Alfred. (See Pyott, Louis P., assignor.)						
Box, Alfred, Philadelphia, Pa. Oscillating hand-chain guide.....	225,330	Mar. 9	423	123	17	540
Boyce, George, King's Norton, England. Paper-box machine.....	225,915	Mar. 30	1112	{ 317 318 }	{ 17 17 }	{ 690 690 }
Boyd, Alexander. (See Gemmell and Boyd.)						
Boyd, Henry E., McKeesport, Pa. Protector for the threaded ends of pipes, tubing, &c.....	228,171	June 1	13	4	17	1229
Boyd, John, Baltimore, Md., and R. O. Crowley, New York, N. Y. Electrical water-indicator for steam-boilers.....	224,068	Feb. 3	115	33	17	922
Boyd, John M., Oakfield, Wis. Horse hay-fork.....	235,065	Dec. 7	6	2	18	1282
Boyd, Samuel A., Avondale, Ohio. Grain measure and register.....	232,445	Sept. 21	700	193	18	654
Boyd, Thomas, Pittsburg, Pa. Elastic lining for walls.....	230,228	July 20	843	238	18	154
Boyd, Trustin B., St. Louis, Mo. Collar-button.....	232,108	Sept. 14	281	78	18	578
Boyer, John K. (See Davis, Augustus B., assignor.)						
Boyer, John L., and J. Kinsey, assignors to Globe Rolling Mill Company, Cincinnati, Ohio. Wire fence and fence-post.....	226,385	Apr. 13	270	80	17	805
Boyers, Jacob, Brimfield, Ind. Spring bed-bottom.....	229,085	June 22	1136	310	17	1425
Boyington, Levi C., Chicago, Ill. Cabinet-bed.....	230,397	July 27	1082	304	18	199
Boyington, Levi C., Chicago, Ill. Combined foot-rest and boot-jack.....	231,529	Aug. 24	1072	301	18	440
Boylan, William C. (See Currier, Osceola, assignor.)						
Boyle, David, Chicago, Ill. Pipe-coupling.....	223,835	Jan. 27	769	206	17	162
Boyle, James E., Brooklyn, N. Y. Service-box.....	234,114	Nov. 9	358	99	18	1053
Boynton, Chandler B., Hastings, Minn. Drill-tooth.....	230,733	Aug. 3	155	46	18	272
Boynton, Eben M., West Newbury, Mass. Construction of ships, &c.....	230,998	Aug. 10	468	133	18	329
Boynton, Eben M., West Newbury, Mass. Railway track and car.....	230,999	Aug. 10	469	{ 133 134 }	{ 18 18 }	{ 330 330 }
Boynton, Eben M., West Newbury, Mass. Railway system.....	232,109	Sept. 14	281	79	18	578
Boynton, Edward S., Bridgeport, Conn. Book-sewing machine.....	232,446	Sept. 21	700	193	18	654
Boynton, Edward S., Bridgeport, Conn. Book-sewing machine.....	232,447	Sept. 21	701	{ 193 194 }	{ 18 18 }	{ 654 654 }
Boynton, Fred. C., Red Wing, Minn. Automatic feeder for middlings-purifiers, &c.....	234,747	Nov. 23	1156	{ 311 312 }	{ 18 18 }	{ 1201 1201 }
Boynton, George E. (See Taylor, James, assignor.)						
Boynton, John F., Saco, Me. Extracting gold, &c., from ores.....	226,965	Apr. 27	980	272	17	940
Boys, Henry R. A. (See Seymour and Boys.)						
Bozorth, John. (See Perkins, Bozorth, and Marble.)						
Brace, James, Frosa, Tex. Churn-power.....	231,000	Aug. 10	471	134	18	330
Brace, Julius, New Orleans, La. Asphalt varnish.....	228,029	May 25	1108	.....	17	1188
Brace, William H., assignor of two-thirds interest to J. Colvin and D. P. Cargill, Castile, N. Y. Thill-coupling.....	225,333	Mar. 9	426	124	17	541
Brace, William H., assignor to himself, J. Colvin, and D. P. Cargill, Castile, N. Y. Carriage-spring.....	225,334	Mar. 9	426	124	17	541
Bracher, Thomas W. (See Pelissé, August, assignor.)						
Bracher, Thomas W., New York, N. Y. Sweat-lining guide for sewing-machines.....	224,134	Feb. 3	186	53	17	234
Bracher, Thomas W., New York, N. Y. Sweat for hats, &c.....	229,949	July 13	513	142	18	93
Bracher, Thomas W., New York, N. Y. Sweat-band for hats and caps. (Reissue).....	9,331	Aug. 3	299	85	18	297
Brachmann, William P., Newark, N. J. Bolt for double doors.....	232,672	Sept. 28	960	263	18	705
Brackebush, Alfred C. (See Brackebush, Charles J., assignor.)						
Brackebush, Charles J., New York, N. Y. Furniture-caster.....	223,702	Jan. 20	603	161	17	125
Brackebush, Charles J., Canton, Ohio, assignor of one-half interest to A. C. Brackebush, Chicago, Ill. Clamp for attaching handles to earthenware and glass vessels.....	231,263	Aug. 17	732	219	18	357
Brackett, Jefferson B., and J. R. Bailey, Woonsocket, R. I., assignors to said Brackett and A. L. Talbot, Lewiston, Me. Bench for wringing-machines.....	234,653	Nov. 23	1046	281	18	1184
Brackett, John H., Dover, N. H. Feeding device for carding-machines.....	227,672	May 17	677	193	17	1110
Brackett, Winslow M., Minneapolis, Minn. Dust and salvage cornice-curtain.....	225,101	Mar. 2	143	41	17	481
Braconnier, Alfred, Nancy, France. Preparation of magnesia and the manufacture of refractory brick therefrom.....	232,110	Sept. 14	283	.....	18	578
Bradburn, Peter W., Guthrie Centre, Iowa. Car-coupling.....	234,652	Nov. 23	1045	281	18	1184
Bradford, Addison, Saratoga Springs, N. Y. Indicator for electric burglar-alarms.....	232,591	Sept. 28	864	239	18	689

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Bradford, Charles K., Lynnfield, assignor to himself and J. Shaw, 2d, Lynn, Mass. Edge-setting machine for boots and shoes.	229,517	July 6	8	3	18	10
Bradford, Purmort, assignor to Sargent & Co., New Haven, Conn. Flush-bolt.	224,638	Feb. 17	776	219	17	361
Bradish, Nelson P., Jerseyville, Ill. Bedstead-fastening.	230,172	July 20	781	218	18	145
Bradley, Byron C., Chicago, Ill. Sulky-plow.	226,027	Mar. 30	1260	355	17	712
Bradley, Byron C., Chicago, Ill. Cultivator.	226,833	Apr. 27	819	228	17	915
Bradley, Charles W. (See Mart and Bradley.)						
Bradley, Christopher C. (See Thompson, Perry, assignor.)						
Bradley, Earnshaw, Three Rivers, Quebec, Canada. Purifying extracts of bark.	230,398	July 27	1083	395	18	199
Bradley, Franklin B. (See Delkescamp, Adolph, assignor.)						
Bradley, Gilbert W., Sunderland, Vt. Material to be used in the construction of boxes and other receptacles.	231,001	Aug. 10	472	134	18	330
Bradley, Gilbert W., Sunderland, Vt. Butter-package.	233,195	Oct. 12	491	135	18	826
Bradley, Henry A., New York, N. Y. Hydrocarbon-burner.	233,397	Oct. 19	762	209	18	879
Bradley & Hubbard Manufacturing Company <i>et al.</i> (See Morgan and Evarts, assignors.)						
Bradley & Hubbard Manufacturing Company. (See Bradley, Nathaniel L., assignor.)						
Bradley & Hubbard Manufacturing Company. (See Evarts, John A., assignor.)						
Bradley & Hubbard Manufacturing Company. (See Parker, Edmund A., assignor.)						
Bradley & Hubbard Manufacturing Company. (See Patitz, Albert, assignor.)						
Bradley & Hubbard Manufacturing Company. (See Seidensticker, F. Robert, assignor.)						
Bradley, Jerome, <i>et al.</i> (See Hugentobler, Emil M., assignor.)						
Bradley, John, Lowell, Mass. Circular-knitting machine.	227,213	May 4	149	43, 44	17	1002
Bradley, Joseph S. (See Brigham, Bradley, and Brigham.)						
Bradley, Milton, Springfield, Mass. Engraving printing-surfaces.	225,457	Mar. 16	568	165	17	575
Bradley, Nathaniel L., assignor to Bradley & Hubbard Manufacturing Company, West Meriden, Conn. Shade-holder.	229,594	June 8	529	141	17	1319
Bradley, Nathaniel L., assignor to Bradley & Hubbard Manufacturing Company, Meriden, Conn. Lamp-fixture.	235,329	Dec. 7	312	88	18	1333
Bradley, Osgood, Jr., Worcester, Mass. Center-plate for railway-cars.	225,332	Mar. 9	425	124	17	541
Bradley, William, Fort Wayne, Ind. Lock for car-doors.	232,448	Sept. 21	705	194	18	655
Bradley, William E. (See Allen and Bradley.)						
Bradley, William W. (See Platt and Bradley.)						
Bradt, Henry, Schenectady, N. Y. Whisk.	223,703	Jan. 20	604	161	17	125
Brady, Alfred, New York, N. Y. Socket for wooden poles or posts.	225,683	Mar. 23	837	243	17	631
Brady, Dennis, New Orleans, La. Rain-water cut-off.	233,972	Nov. 2	177	45	18	1015
Brady, Edwin L., New York, N. Y. Vapor-motor.	224,766	Feb. 24	940	268	17	404
Brady, Gilbert A., Chicago, Ill. Tension device for sewing-machines.	226,028	Mar. 30	1261	356	17	713
Brady, James, assignor to C. K. Dodge, Brooklyn, N. Y. Machinery for stretching leather belting. (Reissue).	9,059	Jan. 27	939	251	17	190
Brady, James, Brooklyn, N. Y. Vise and clamp.	228,245	June 1	101	30	17	1243
Brady, James, Brooklyn, N. Y. Construction of cams for machinery.	231,145	Aug. 17	637	181	18	364
Brady, James W., Catonsville, Md. Hermetic sealing of jars.	232,170	Sept. 14	350	98	18	589
Bragg, Henry W. (See Gilman, Edward L., assignor.)						
Brahn, James, Jersey City, N. J. Railway-switch.	232,171	Sept. 14	351	98	18	589
Brahn, James, Jersey City, N. J. Railway-frog.	232,172	Sept. 14	353	99	18	590
Brailley, Orville M., Amherst, Mass. Hollow auger.	226,968	Apr. 27	984	273	17	941
Brainard, Wilbur F., Bristol, Conn. Lantern-holder.	235,617	Dec. 21	696	198	18	1412
Brainerd, Orrin N., St. Louis, Mo. Box-fastener.	229,857	July 13	413	114	18	78
Brake, C. M., <i>et al.</i> (See Phillips, Joseph A., assignor.)						
Brake, George, Lansing, Mich. Baker's oven.	233,469	Oct. 19	845	233	18	892
Brämer, Carl. (See Riedel and Pflüger, assignors.)						
Bramer, Frank. (See Crowley, George G., assignor.)						
Bramer, Frank, Little Falls, N. Y. Wheel-harrow.	225,331	Mar. 9	423	123	17	540
Bramer, Frank, and G. G. Crowley, Little Falls, N. Y. Harrow and cultivator.	227,724	May 18	744	209	17	1120
Bramhall, Henry, and E. Blaydes; said Bramhall assignor of his entire interest, and said Blaydes assignor of one-third interest, to J. A. Blaydes and J. Wragg, Sheffield, England. Attaching handles to cutlery.	231,392	Aug. 24	924	260	18	417
Branch, William A., and E. Golucke, Crawfordville, Ga. Grinding-mill.	227,212	May 4	148	43	17	1002
Branch, William W., Jr., Madison, Ohio. Fire-kindler.	231,754	Aug. 31	1344	378	18	490
Brand, Henry C. (See Zeimet and Brand.)						
Brand, Junius A., Norwich, Conn. Fuse for explosive projectiles.	223,312	Jan. 6	125	32	17	23
Brandeis, Ludwig, Brooklyn, N. Y. Valve for faucets.	230,173	July 20	781	218	18	145
Brandenburg, Henry E. (See Richards and Brandenburg.)						
Brandon, Charles T., assignor to C. T. Brandon & Co., Toronto, Ontario, Canada. Wash-board.	229,027	June 22	1071	292	17	1415
Brandon & Co., C. T. (See Brandon, Charles T., assignor.)						
Brandon, John C., Detroit, Mich. Machine for dressing moldings.	224,867	Feb. 24	1058	301	17	422
Brandt, George W., <i>et al.</i> (See Dewey, Jerome W., assignor.)						
Brannan, Patrick, Freeport, Ill. Corn-plow.	224,639	Feb. 17	776	220	17	361
Branning, Joseph, Blooming Prairie, Minn. Horse-power sweep.	228,307	June 1	174	49	17	1255
Brannon, Patrick P., and T. B. Bunting, New York, N. Y. Breech-loading cannon.	224,637	Feb. 17	774	219	17	360
Brass, Nathan L., Juniata, Neb. Sulky-harrow.	223,471	Jan. 13	327	88	17	71
Brassington, John D., <i>et al.</i> (See Brassington, Walter J., assignor.)						
Brassington, John D., New York, N. Y. Extension-table.	223,273	Jan. 6	77	20	17	16
Brassington, Walter J., Watkins, N. Y., assignor of three-fourths interest to A. J. Michener, Philadelphia, Pa., W. L. and J. D. Brassington, Brooklyn, N. Y. Apparatus for trimming side-wheel steamboats.	232,931	Oct. 5	164	43	18	765
Brassington, William L., <i>et al.</i> (See Brassington, Walter J., assignor.)						
Brasure, John W., Albany, N. Y. Burial-casket.	232,802	Oct. 5	6	2	18	740
Brauer, Louis, Philadelphia, Pa., assignor of one-half interest to C. Saake. Extension-chandelier. (Reissue).	9,024	Jan. 6	254	67	17	46
Braun, John, Philadelphia, Pa. Device for facilitating the drilling of mower-cylinders.	225,966	Mar. 30	1187	337	17	701
Braun, John, Philadelphia, Pa. Device for facilitating the riveting of cutters to mower-cylinders.	225,967	Mar. 30	1188	338	17	701
Bräunlich, August H., Ida, N. Y., assignor to H. C. Spaulding, Dundee, Mich. Eave-trough hanger.	225,684	Mar. 23	838	244	17	631
Braunsdorf, Julius E., Pearl River, N. Y. Dynamo-electric machine.	226,483	Apr. 13	393	111	17	824
Braunsdorf, Julius E., Pearl River, N. Y. Regulator for electric lamps.	227,478	May 11	455	131	17	1063
Braunsdorf, Julius E., Pearl River, N. Y. Carbon pencil for electric lights.	235,203	Dec. 7	177	48	18	1310
Bray, Mellen. (See Humpbreys, Charles L., assignor.)						
Bray, Mellen and M. N. Newton, Mass. Tubular rivet.	227,092	May 4	2	1	17	979
Bray, Mellen, Newton, Mass. Tubular rivet.	227,673	May 18	678	193	17	1110
Bray, Mellen, Newton, Mass. Lacing-hook.	228,509	June 8	418	114	17	1302
Bray, Mellen, Newton, Mass. Lacing-hook for boots and shoes.	228,510	June 8	419	114	17	1302
Bray, Mellen, Newton, Mass. Book for carrying fishing-flies.	228,511	June 8	420	115	17	1302



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Bray, Mellen, Newton, Mass. Metallic can and box.....	228,512	June 8	422	115	17	1303
Bray, Mellen N. (See Bray, Mellen and M. N.).....						
Bray, Morris P., Birmingham, Conn. Corset.....	229,801	July 13	348	97	18	68
Bray, Morris P., New Haven, Conn. Stay for corsets.....	231,894	Sept. 7	21	4	18	523
Bray, Morris P., New Haven, assignor of one-half interest to Bassett Corset Company, Birmingham, Conn. Corset.....	231,895	Sept. 7	21	5	18	528
Bray, Morris P., assignor to M. Strouse & Co., New Haven, Conn. Machine for folding corset parts.....	231,896	Sept. 7	22	5	18	528
Bray, Sanford, Charlestown, Mass. Stock-car.....	223,876	Jan. 27	824	219	17	170
Bray, Sanford, Charlestown, Mass. Flying target.....	229,086	June 22	1137	310	17	1425
Bray, Thomas J., Pittsburg, Pa. Collapsible ball for welding pipe.....	223,986	Feb. 3	16	6	17	205
Bray, Thomas J., Pittsburg, Pa. Tube-welding ball.....	235,501	Dec. 14	552	157	18	1381
Bray, William, Petitcodiac, New Brunswick, Canada. Carpet-fastener.....	228,306	June 1	174	48	17	1255
Brayton, Albert P. (See Jacobs, Hiram S., assignor.).....						
Brayton, George B., Boston, Mass., assignor to Brayton Petroleum Engine Company, Hartford, Conn. Device for reversing motion.....	235,732	Dec. 21	828	232	18	1434
Brayton, George B., Boston, Mass., assignor to Brayton Petroleum Engine Company, Hartford, Conn. Metallic piston-rod packing.....	235,733	Dec. 21	830	232	18	1434
Brayton Petroleum Engine Company. (See Brayton, George B., assignor.).....						
Brazel, Charles H., Tye River Depot, Va. Horse-detaching apparatus.....	229,087	June 22	1137	310	17	1425
Brazelle, Benjamin, assignor to Brazelle Engine Company, St. Louis, Mo. Governor for engines.....	229,948	July 13	512	141	18	93
Brazelle Engine Company. (See Brazelle, Benjamin, assignor.).....						
Brazier, William S., New York, N. Y. Globe and angle valve.....	224,133	Feb. 3	185	53	17	234
Brearey, Frederick W., Maidenstone Hill, Blackheath, county of Kent, England, assignor of one-third to J. F. Mackenzie, Edinburgh, Scotland. Aerial apparatus.....	234,947	Nov. 30	1408	378	18	1249
Breckenridge, Elias K., Meriden, Conn. Carpet-sweeper.....	224,069	Feb. 3	116	34	17	222
Breckenridge, Joseph W., La Fayette, Ind. Type-writer.....	233,196	Oct. 12	493	135 136	18	826
Bredemann, William, Jefferson City, Mo. Sawing-machine.....	226,969	Apr. 27	985	274	17	941
Breed, Richard E. (See Ellis, Josiah W., assignor.).....						
Breed, Richard E. (See Shinn, Thornton A., assignor.).....						
Breeding, William P., assignor of one-half interest to C. H. Horne, Philadelphia, Pa. Apparatus for bundling hoop-iron.....	227,953	May 25	1024	292	17	1176
Breeding, William P., assignor of one-half interest to C. H. Horne, Philadelphia, Pa. Holder for galvanizing bolts.....	229,366	June 29	1461	402	17	1478
Breeding, William P., assignor of one-half interest to C. H. Horne, Philadelphia, Pa. Galvanizing metals.....	230,463	July 27	1164	328	18	212
Breen, Thomas, Knowlton, Pa. Car-coupling.....	228,863	June 15	876	239	17	1378
Breinig, David E. (See Fairbanks and Breinig.).....						
Bremerkamp, Cornelius, No. 197 New Cross Road, London, England. Roadway and tramway.....	223,431	Jan. 13	276	73	17	63
Bremner, David F. (See Smith, John F. S., assignor.) (Reissue.).....						
Bremner, David F., Chicago, Ill. Molding bread.....	234,166	Nov. 9	416	113	18	1063
Breneman, Josephus C. (See Peat, Thomas, assignor.).....						
Brengle, George A., Livonia, Ind. Churn-power.....	226,704	Apr. 20	666	185	17	879
Brennan, William, New York, N. Y. Wire lathing.....	228,030	May 25	1108	315	17	1188
Brenton, Arch G. (See Haptonstall and Banks, assignors.).....						
Brenton, William, Polbathic, St. Germans, England. Sash-fastener.....	224,324	Feb. 10	407	116	17	290
Breon, Allen D. (See Breon and Nixon.).....						
Breon, George and A. D., and F. M. Nixon, Lena, Ill.; said A. D. Breon assignor to said George Breon and F. M. Nixon. Gate.....	233,724	Oct. 26	1159	322	18	955
Bresnahan, Cornelius, Detroit, Mich. Locomotive ash-pan.....	231,208	Aug. 17	724	203	18	377
Bressler, George, Altoona, Pa. Car-brake.....	234,525	Nov. 16	863	230	18	1147
Brewer, Albert L., Tecumseh, Mich. Auger or forcing-screw for brick and tile machines.....	233,820	Oct. 19	669	184	18	864
Brewer, Benjamin B. (See Waterhouse and Brewer.).....						
Brewer, John H. (See Duryee, George, assignor.).....						
Brewer, Wesley S., Richmond, Ind., assignor of one-half interest to L. M. Hosea, Cincinnati, Ohio. Telegraphy.....	233,138	Oct. 12	426	117	18	815
Brewster, Elias M., Norwich, Conn. Ash-sifter.....	229,371	June 29	1466	404	17	1478
Bricker, William H., Mount Vernon, Ohio. Fence.....	230,734	Aug. 3	156	46	18	272
Brickett, John, assignor of two-thirds interest to H. A. Griswold and G. W. Flott, Danforth, Ill. Seed-planter.....	229,029	June 22	1072	292	17	1415
Brickett, John, Danforth, Ill. End-gate for wagons.....	229,029	June 22	1073	293	17	1415
Bridewell, Richard F., San Francisco, Cal. Ore stamp-mill.....	232,878	Oct. 5	102	27	18	755
Bridgeport Brass Company. (See Eichberg, Otto F., assignor.).....						
Bridgeport Brass Company. (See Kissam, Daniel W., assignor.).....						
Bridgeport Brass Company. (See Wilmot, Samuel R., assignor.).....						
Bridgeport Wood Finishing Company. (See Fairbanks and Breinig, assignors.).....						
Bridges, John, assignor of two-thirds to T. A. McGrew, Leon, Iowa. Water-indicator for boilers.....	235,409	Dec. 14	430	121	18	1361
Bridges, John R., Philadelphia, Pa. Clamp for securing plungers in glass-presses.....	227,608	May 18	604	174	17	1099
Bridgewater Iron Company. (See Laughlin, Joseph M., assignor.).....						
Bridgman, Almon, and J. L. Perry, assignors of one-third interest to C. A. Mather, Berlin, Wis. Wood-polishing machine.....	226,273	Apr. 6	140	40	17	771
Briegleb, John C. (See Class and Briegleb.).....						
Brierley, Frederick W. and W. W., assignors of one-fourth interest to H. N. Jenkins, New Orleans, La. Safety-locking railway-switch.....	231,648	Aug. 31	1220	342	18	471
Brierley, Walter W. (See Brierley, Frederick W. and W. W.).....						
Brierly, John, Brooklyn, N. Y. Valve-gear for steam-engines.....	235,410	Dec. 14	432	121	18	1361
Briggs, Arthur E., assignor to Post & Co., Cincinnati, Ohio. Magneto-electrical machine.....	226,386	Apr. 13	271	80	17	806
Briggs, Arthur E., assignor to Post & Co., Cincinnati, Ohio. Telephone and microphone switch.....	235,066	Dec. 7	7	2	18	1282
Briggs, Duncan D., Jr., Meridian, Miss. Seed-planter.....	231,264	Aug. 17	753	219	18	387
Briggs, Emory O. (See Allen, Chester F., assignor.).....						
Briggs, Herman E., Centre Star, Ala. Tether.....	230,229	July 20	844	238	18	154
Briggs, James A. (See Muirhead, Briggs, and Winter.).....						
Briggs, John C., assignor to Mason & Hamlin Organ Company, Boston, Mass. Reed-organ.....	229,369	June 29	1463	403	17	1478
Briggs, John C., assignor to Mason & Hamlin Organ Company, Boston, Mass. Spring for organ-valves.....	229,370	June 29	1465	403	17	1478
Briggs, Myrick, South Abington, Mass. Apparatus for coating small articles with metal.....	230,857	Aug. 10	316	93	18	206
Briggs, Myron C., and W. A. Jones, Bairdstown, Ohio. Barrel-drumper.....	225,792	Mar. 22	969	279	17	652

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Briggs, Orlando P., <i>et al.</i> (See Locke, Charles S., assignor.)						
Briggs, Richard H., and J. H. Dougherty, Whistler, Ala. Machine for making eyebolts....	223,472	Jan. 13	328	88	17	71
Briggs, Richard H., and J. H. Dougherty, Whistler, Ala. Mechanism for making ladder-irons and hand-holds for freight-cars. ....	223,877	Jan. 27	825	{ 219 220 }	{ 17 17 }	{ 171 171 }
Briggs, Richard H., and J. H. Dougherty, Whistler, Ala. Car-door fastener. ....	234,526	Nov. 16	864	230	18	1147
Briggs, Robert, Philadelphia, Pa. Machine for beveling the edges of metal plates. ....	231,146	Aug. 17	638	181	18	364
Briggs, Thomas, Lynn, Mass. Cam-slide. ....	233,398	Oct. 19	762	209	18	879
Briggs, William, West Gardner, Mass. Chair-seat. ....	231,002	Aug. 10	473	135	18	330
Briggs, William, Montreal, Quebec, Canada. Apparatus for feeding nail-machines. ....	235,667	Dec. 21	750	213	18	1421
Brigham, Dan. (See Shaw and Brigham.)						
Brigham, Francis, J. S. Bradley, W. F. and W. B. Brigham, Hudson, Mass. Boot and shoe upper. ....	224,269	Feb. 10	343	99	17	250
Brigham, Francis and W. F., S. M. Hewitt, Hudson, and W. F. Prusha, Marlborough, Mass. Water-proof fabric. ....	226,031	Mar. 30	1264	.....	17	713
Brigham, H. S. C. (See Brigham, William V., assignor.)						
Brigham, Waldo B. (See Brigham, Bradley, and Brigham.)						
Brigham, Wilbur F. (See Brigham, Bradley, and Brigham.)						
Brigham, Wilbur F. (See Brigham, Hewitt, and Prusha.)						
Brigham, William V., assignor of one-half to H. S. C. Brigham, Newton, Mass. Manufacture and ornamentation of sheets of gelatine. ....	233,973	Nov. 2	178	.....	18	1016
Bright, Thomas, Marengo, Ill. Windmill. ....	226,030	Mar. 30	1263	356	17	713
Bright, William S., and S. Thomas, Letart, W. Va. Grain-separator. ....	231,992	Sept. 7	145	38	18	547
Brightman, John C., Fall River, Mass. Box-loop for harness. ....	231,393	Aug. 24	925	261	18	417
Brightman, Joseph W., <i>et al.</i> (See Patterson, William, assignor.)						
Brightman, Joseph W., <i>et al.</i> (See Patterson, William H., assignor.)						
Brill, Andrew, Cincinnati, Ohio. Stationary-shuttle sewing-machine. ....	232,932	Oct. 5	105	43	18	765
Brimblecom, John W. (See Crooker, William W., assignor.)						
Brinkerhoff, Cornelius R., Rochester, N. Y. Boring and mortising machine. ....	230,735	Aug. 3	156	46, 47	18	272
Brinckmann, Gilles F. E., Oakland, Cal. Combined ore crusher and pulverizer. ....	233,139	Oct. 12	428	118	18	815
Brink, John R., Graham, Mo. Wind-engine. ....	232,673	Sept. 28	961	263	18	705
Brink, Peter H., Elizabeth, N. J., assignor to P. C. Schuyler, New York, N. Y. Preservation of salted codfish. ....	229,368	June 29	1462	403	17	1478
Brinkerhoff, Alexander W., Upper Sandusky, Ohio. Rectal speculum. ....	224,991	Mar. 2	10	3	17	458
Brinkerhoff, Jacob and W. M., Auburn, N. Y. Stretcher for straining metallic fencing. ....	224,992	Mar. 2	11	4	17	458
Brinkerhoff, Warren M. (See Brinkerhoff, Jacob and W. M.)						
Brinley, John L., Louisville, Ky. Plow. ....	229,367	June 29	1461	402	17	1478
Brinton, Caleb, Chicago, Ill. Furniture-caster. ....	225,335	Mar. 9	427	124	17	541
Brinton, Caleb, Chicago, Ill. Furniture-caster. ....	228,977	June 22	1017	277	17	1408
Brinton, Henry F., North Huntington township, (Larimer's Station P. O.,) Westmoreland county, Pa. Machine for cooking and drying food and grain. ....	230,525	July 27	1228	346	18	223
Brisac, Salomon, assignor of two-thirds interest to L. F. Duparquet and P. Huot, New York, N. Y. Wheel-guard for railway-cars. ....	223,473	Jan. 13	329	88	17	71
Brisac, Salomon, New York, N. Y. Wheel-guard. ....	226,970	Apr. 27	986	274	17	942
Bristol, Charles B., New Haven, Conn. Snap-hook. ....	226,029	Mar. 30	1262	356	17	713
Britain, Thomas J., assignor of one-half interest to A. H. Morgan, Nacogdoches, Tex. Churn-power. ....	224,767	Feb. 24	941	269	17	404
Brittain, Charles S., and H. King; said King assignor to M. Gandy, Liverpool, England. Envelope for the manufacture of oil-cake. ....	224,135	Feb. 3	187	53, 54	17	234
Britton, Henry W., Stoughton, Mass. Bicycle. ....	233,723	Oct. 26	1158	322	18	954
Brizee, John, Alameda, Cal. Egg-carrier. ....	233,321	Oct. 19	670	184	18	864
Broad, Willard, assignor of one-half interest to C. M. Adams, Ashland, Mass. Nut-lock. ....	224,325	Feb. 10	408	116	17	290
Broadbent, Charles F., assignor to Lubricating Material and Oil Company, Baltimore, Md. Lubricating composition. ....	223,197	Oct. 12	494	.....	18	827
Broadbent, Sidney, Scranton, Pa. Axle-lubricator. ....	229,859	July 13	415	115	18	78
Broadbent, Sidney, Scranton, Pa. Tooth for coal-breakers. (Reissue) ....	9,456	Nov. 9	683	185	18	1109
Broadberry, Henry K., <i>et al.</i> (See Curry, William M., assignor.)						
Brock, Matthias. (See Copeland and Brock.)						
Brock, Matthias. (See Copeland, Woodward, and Brock.)						
Brock, Matthias. (See Woodward and Brock.)						
Brock, Matthias, and E. Woodward, Boston, assignors to G. W. Copeland, Malden, and P. W. French, East Weymouth, Mass. Machine for attaching outsoles. ....	231,167	Nov. 9	417	{ 113 114 }	{ 18 18 }	{ 1063 1063 }
Brock, Matthias, and E. Woodward, Boston, assignors to G. W. Copeland, Malden, and P. W. French, East Weymouth, Mass. Device for preparing uppers for the lasting process. ....	234,231	Nov. 9	499	137	18	1078
Brock, William E., assignor of one-half interest to A. L. Berrian, New York, N. Y. Can-opener. ....	228,595	June 8	530	141	17	1319
Brock, William E., New York, N. Y., assignor to Compound Lumber Company. Compound lumber. ....	230,174	July 20	782	218	18	145
Brock, William E., New York, N. Y., assignor to T. H. Stout, New Brunswick, N. J. Can-opener. ....	224,527	Nov. 16	865	230	18	1147
Brock, William H., Corona, N. Y. Box-nailing machine. ....	230,230	July 20	844	239	18	154
Brock, William H., Corona, assignor to J. A. Bostwick, New York, N. Y. Sheet-metal-can machine. ....	230,465	July 27	1165	329	18	212
Brock, William H., Corona, assignor to J. A. Bostwick, New York, N. Y. Sheet-metal-can machinery. ....	232,111	Sept. 14	283	79	18	578
Brockett, Clinton T., assignor of one-half interest to G. R. Vickers, Jr., Baltimore, Md. Thill-coupling. ....	226,032	Mar. 30	1265	356	17	713
Brockie, James, Brixton, England. Electric lamp. ....	233,399	Oct. 19	763	219	18	579
Brockman, William H., assignor to H. K. Sullivan, Anderson Court-House, S. C. Churn-dasher. ....	223,879	Jan. 27	827	220	17	171
Brockway, Jesse, Oswego, Ill. Evaporator. ....	231,756	Aug. 31	1345	378	18	490
Brodie, Louis A., Glasgow, assignor to C. Douglas & Co., No. 60 Barron Street, Port Dundas, North Britain. Manufacture of slabs or blocks from wood or paper pulp, or from sheets made from such pulp, &c. ....	233,322	Oct. 19	671	.....	18	864
Brogard, Henry A. (See Southan, Thomas, assignor.)						
Brokenshire, John, Kingston, Ontario, Canada. Construction of composite roofs. ....	225,737	Dec. 21	834	233	18	1435
Brombacher, Charles, Tarrytown, N. Y. Machine for cutting and scoring card-board. ....	223,475	Jan. 13	331	89	17	71
Brommer, Charles G., Detroit, Mich. Manufacture of candy. ....	229,667	July 6	178	.....	18	35
Bronk, Charles. (See Niblett and Bronk.)						
Bronson, George H., New York, N. Y. Car-mover. ....	228,726	June 15	706	194	17	1355
Brook, Edward, Bradford, Great Britain, assignor to H. A. Gadsden, London, England. Furnace. ....	230,104	July 20	705	197	18	133
Brooke, Horace L., Baltimore, Md. Hot-blast oven. ....	231,265	Aug. 17	784	219	18	387
Brookfield, James M., Brooklyn, N. Y. Forming insulators. (Reissue) ....	9,392	Sept. 28	1115	305	18	731

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Brooks, Abraham, Acushnet, assignor to himself, W. C. and L. H. Stoddard, Fairhaven, } Mass. Sewing and embroidering machine.....	235,609	Dec. 14	682	{ 194 195 }	18	1403
Brooks, Asa. (See Birxy and Brooks.)						
Brooks, Chapin C., Lancaster, N. H. Reversible plow.....	224,136	Feb. 3	188	54	17	234
Brooks & Co., E. J. (See Anthes, Frederic, assignor.)						
Brooks & Co., E. J. (See Brooks, Edward J., assignor.)						
Brooks, David, Philadelphia, Pa. Pipe-inclosed underground cable.....	234,748	Nov. 23	1157	312	18	1261
Brooks, David, Jr., Philadelphia, Pa. Underground telegraph.....	235,502	Dec. 14	553	158	18	1381
Brooks, David, Jr., Philadelphia, Pa. Underground telegraph.....	235,734	Dec. 21	831	233	18	1435
Brooks, David, Jr., Philadelphia, Pa. Method of introducing telegraph-wires into pipes.....	235,735	Dec. 21	832	233	18	1435
Brooks, Edgar B., La Porte, Ind. Water-wheel.....	224,270	Feb. 10	344	99	17	280
Brooks, Edward G. (See Penney, Isaac L., assignor.)						
Brooks, Edward J., Orange, N. J., assignor to E. J. Brooks & Co. Sash lock and lift.....	225,558	Mar. 16	686	200	17	595
Brooks, Edward J., Orange, N. J., assignor to E. J. Brooks & Co., New York, N. Y. Lan- } tern.....	225,794	Mar. 23	971	{ 279 280 }	17	653
Brooks, Edward J., East Orange, N. J., assignor to E. J. Brooks & Co., New York, N. Y. } Seal and tag.....	235,668	Dec. 21	752	213	18	1421
Brooks, Emery J., Philadelphia, Pa. Combustion of fuel.....	225,793	Mar. 23	970	279	17	653
Brooks, Franklin W., New York, N. Y., assignor of one-fourth interest to N. B. Blackford, } Georgetown, D. C. Revenue-stamp.....	223,432	Jan. 13	278	73	17	63
Brooks, Franklin W., New York, N. Y., assignor of one-fourth interest to N. B. Blackford, } Georgetown, D. C. Revenue-stamp.....	223,433	Jan. 13	279	74	17	63
Brooks, Frederick A., and H. Willard, Dayton, Ohio. Machinery for making lock-casings.....	231,209	Aug. 17	725	203	18	377
Brooks, George, assignor of two-thirds interest to F. C. Nall, Detroit, Mich. Fanning-mill.....	229,668	July 6	179	49, 50	18	35
Brooks, George D., Baltimore, Md. Sheet-metal-seaming machine.....	225,685	Mar. 23	839	244	17	631
Brooks, James W., et al., trustees. (See Goddn, Louis, assignor.) (Reissue.)						
Brooks, James W., trustee. (See Harrison, Reuben M., assignor.)						
Brooks, Jesse C., Darlington, Ind. Grain-meter.....	234,951	Nov. 30	1416	381	18	1250
Brooks, John C., Mason City, Ill. Car-coupling.....	229,950	July 13	515	142	18	93
Brooks, Samuel, Paterson, N. J. Reel for silk.....	232,330	Sept. 21	553	153	18	630
Brooks, William D., assignor to himself and J. S. Hull; said Hull assignor to J. Q. Rand, } Baltimore, Md. Can-soldering machine.....	228,864	June 15	879	{ 239 240 }	17	1379
Brooks, William D., assignor to himself and D. D. Mallory, Baltimore, Md. Can-soldering } machine.....	234,948	Nov. 30	1409	{ 378 379 }	18	1249
Brooks, William D., assignor to himself and D. D. Mallory, Baltimore, Md. Can-soldering } machine.....	234,949	Nov. 30	1412	{ 379 380 }	18	1249
Brooks, William D., assignor to himself and D. D. Mallory, Baltimore, Md. Can-making } machine.....	234,950	Nov. 30	1414	{ 380 381 }	18	1250
Brooks, William H., West Point, N. Y. Steam-radiator.....	235,503	Dec. 14	554	158	18	1382
Broome, Lewis H. (See Davies and Chidester, assignors.)						
Brosemann, Ernst, New York, N. Y. Manufacture of trimmings.....	226,484	Apr. 13	394	111	17	824
Brosemann, Ernst, New York, N. Y. Machine for creasing fluted fabrics.....	228,309	June 1	176	49	17	1255
Brosius, Jacob, Belleville, Ill. Insulating steam-conducting pipes.....	223,314	Jan. 6	127	32	17	23
Brosius, Jacob, Belleville, Ill. Steam-conducting pipe.....	226,834	Apr. 27	820	229	17	915
Brosius, Jacob, Belleville, Ill. Radiator.....	232,235	Sept. 14	427	118	18	603
Brott, George F., Washington, D. C. Steam-boiler.....	235,124	Dec. 7	73	22	18	1293
Broughton, John, Brooklyn, N. Y. Hermetically-sealed metallic can.....	228,031	May 25	1109	315	17	1188
Broughton, John, Brooklyn, N. Y. Clamp for hose-connections.....	235,931	Dec. 28	1092	302	18	1486
Broughton, John, assignor to D. H. Fitzgerald, Brooklyn, N. Y. Shutter-bower.....	233,974	Nov. 2	179	45	18	1016
Broughton, John, assignor to D. H. Fitzgerald, Brooklyn, N. Y. Lock-hinge.....	233,975	Nov. 2	180	46	18	1016
Broun, Campbell C., et al. (See Onderdonk, Lansing, assignor.)						
Brower, Emmett H., Carson City, Mich. Revolving car-signal.....	223,313	Jan. 6	128	32	17	23
Brower, Lyeurgus, assignor to E. & H. T. Anthony & Co., New York, N. Y. Picture- } frame.....	231,473	Aug. 24	1008	283	18	431
Brower, Walter S., Albany, N. Y. Sharpening and preserving the bevels of engravers' } tools.....	223,315	Jan. 6	128	33	17	23
Brower, Walter S., and J. Schlesinger, Albany, N. Y. Bush for how-holes for watch-pend- } ants.....	234,654	Nov. 23	1047	282	18	1184
Brower, William W., New York, N. Y. Stirrup.....	223,577	Jan. 13	453	122	17	92
Brown, Adna, Springfield, Vt. Cloth-rolling machine.....	225,557	Mar. 16	685	200	17	595
Brown, Albert R., Guilford, N. Y. Milk-cooler.....	229,373	June 29	1468	404	17	1479
Brown, Alexander E., et al. (See Day, Erastus, assignor.)						
Brown, Alexander E., Cleveland, Ohio. Truck apparatus for lifting and conveying weights. } (Reissue).....	9,332	Aug. 3	300	85	18	297
Brown, Alexander E., Cleveland, Ohio. Hoisting and conveying machine.....	232,236	Sept. 14	428	{ 118 119 }	18	604
Brown, Alexander T., assignor to P. Burns, Syracuse, N. Y. Lock for fire-arms.....	234,749	Nov. 23	1158	312	18	1201
Brown & Brothers. (See White, Lo Roy S., assignor.)						
Brown, Carrie D. (See Brown, Fred H., assignor.)						
Brown, Charles. (See Kamp and Brown.)						
Brown, Charles H. (See Hill, Andrew L., assignor.)						
Brown, Charles L. (See Werner, John A., assignor.)						
Brown, Charles M., Chicago, Ill. Stone-crusher.....	225,104	Mar. 2	145	42	17	451
Brown, Charles M., Chicago, Ill. Power-hammer.....	230,612	Aug. 3	16	5	18	249
Brown, Clark J., assignor of one-half interest to J. G. Jack, Randolph, N. Y. Portfolio.....	231,394	Aug. 24	926	261	18	418
Brown, Coolidge B., Placerville, Cal. Meal bin and sifter combined.....	224,326	Feb. 10	409	116	17	290
Brown, Daniel, Jr., Johnston, R. I. Tool for capping, uncapping, and loading cartridge- } shells.....	232,173	Sept. 14	353	99	18	590
Brown, Darius C., Lowell, Mass. Harness for looms. (Reissue).....	9,220	May 25	1269	353	17	1216
Brown, Edmund D., and A. J. Hoag, Battle Creek, Mich., assignors to Nichols, Shepard & } Co. Traction-engine.....	225,560	Mar. 16	688	201	17	595
Brown, Edward, Philadelphia, Pa. Pyrometer.....	234,168	Nov. 9	421	114	18	1064
Brown, Edward, Philadelphia, Pa. Pyrometer.....	234,169	Nov. 9	422	114	18	1064
Brown, Elias, Wappinger's Falls, N. Y. High-back comb.....	232,449	Sept. 21	706	195	18	635
Brown, Elijah P., Cincinnati, Ohio. Stereotype.....	229,861	July 13	417	115	18	78
Brown, Elijah P., Cincinnati, Ohio. Block for interchangeable stereotypes.....	229,862	July 13	418	116	18	78
Brown, Ephraim, Lowell, Mass. Vise and shears combined.....	230,400	July 27	1086	305	18	199
Brown, F. Barton, Boston, Mass. Hinge for awning-blinds.....	235,927	Dec. 28	1087	301	18	1455
Brown, Fred H., Dallas, assignor of one-half interest to C. D. Brown, Fort Worth, Tex. } Child's crib.....	228,596	June 8	531	141	17	1319
Brown, George, et al. (See Stamour, John B., assignor.)						
Brown, George H., Mount Vernon, N. Y. Support for pictures.....	228,308	June 1	175	40	17	1255
Brown, George W. (See Fessenden, Albert H., assignor.) (Reissue.)						
Brown, George W. (See Hickok, Cooper, and Brown.)						



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Brown, George W., and S. G. Holyoke, Galesburg, Ill.; said Holyoke assignor to said Brown. Machine for tempering cultivator teeth or shovels.	232,112	Sept. 14	285	80	18	579
Brown, Hilry, assignor of one-half interest to J. C. Sims, Bowling Green, Ky. Churn-power.	232,451	Sept. 21	708	195	18	655
Brown, Horace F. (See Armstrong, Atkins, and Brown.)						
Brown, Huntington, assignor to Aultman & Taylor Company, Mansfield, Ohio. Smoke-stack.	226,439	Apr. 13	341	98	17	816
Brown, James, Pawtucket, R. I. Under-clearer spring for cotton-spinning machines.	227,609	May 18	605	174	17	1099
Brown, James B., Danbury, Conn., assignor to himself and W. H. Howe, Lynn, Mass. Hat pouncing and shaving machine.	225,270	Mar. 9	332	97	17	527
Brown, James E., Williamsburg, assignor to G. Pancoast, New York, N. Y. Drop-light gasalier.	232,592	Sept. 28	865	240	18	690
Brown, James E., Williamsburg, assignor to G. Pancoast, New York, N. Y. Drop-light gasalier.	232,593	Sept. 28	867	240	18	690
Brown, James O., Bangor, Me. Cutter and cutter-finger.	230,858	Aug. 10	317	93	18	307
Brown, James V., and B. R. Neal, De Soto, Ill. Stock-car.	234,953	Nov. 30	1418	382	18	1250
Brown, J. B., et al. (See Center, Joshua C., assignor.)						
Brown, Jefferson, Jr., New York, N. Y. Bung.	225,102	Mar. 2	144	41	17	461
Brown, Jefferson, Jr., New York, N. Y., assignor to J. A. Chesley, Wakefield, N. H. Cartridge-loading implement.	232,879	Oct. 5	103	28	18	755
Brown, Jeremiah, et al. (See Kamp and Brown, assignors.)						
Brown, John, Ishpeming, Mich. Rock-drill.	223,474	Jan. 13	330	88	17	71
Brown, John, and P. Miller, Springfield, Mass. Fire-place grate.	231,206	Aug. 17	720	202	18	377
Brown, John D., assignor of two-thirds interest to M. L. Harney and P. J. Vanderbilt, New York, N. Y. Spark-arrester.	227,410	May 11	376	111	17	1050
Brown, John D., assignor of one-half interest to M. L. Harney, New York, N. Y. Exhaust mechanism.	233,235	Nov. 2	10	3	18	988
Brown, John F., Brooklyn, assignor to Oxley & Giddings, New York, N. Y. Suspension-slide for chandeliers.	229,860	July 13	416	115	18	78
Brown, John H., New York, N. Y., assignor to F. A. Kursheedt. Machine for creasing fluted fabrics. (Reissue.)	9,071	Feb. 10	610	177	17	324
Brown, John H., Brooklyn, N. Y. Button-hole sewing-machine.	225,559	Mar. 16	687	201	17	595
Brown, John H., Brooklyn, and L. Mayer, New York; said Brown assignor to W. Kayton, New York, N. Y. Hemstitch sewing-machine.	227,375	May 11	343	100	17	1045
Brown, John H., Creston, Ill. Sulky-plow.	230,859	Aug. 10	318	94	18	307
Brown, John H., New York, N. Y. Machine for disintegrating and decorticating fibrous plants.	233,976	Nov. 2	180	46	18	1016
Brown, John H., assignor to F. A. Kursheedt, New York, N. Y. Machine for gathering and pressing fluted fabrics.	235,067	Dec. 7	8	2, 3	18	1282
Brown, John J. (See Berkmyer and Brown.)						
Brown, John W. (See Wickey and Brown.)						
Brown, Joseph H., et al. (See Todd, James, assignor.) (Reissue.)						
Brown, Joseph H., and E. B. Rosa, Wellsville, N. Y. Milk-can.	232,329	Sept. 21	552	152	18	630
Brown, Joseph M., York, Nebr. Implement for moving cars.	225,336	Mar. 9	428	125	17	541
Brown, Leroy, Waitsburg, Wash. Ter. Sulky-plow.	226,705	Apr. 20	667	186	17	879
Brown, Lucian, et al. (See Stamour, John B., assignor.)						
Brown, Malachi, East Saginaw, Mich. Curtain-fixture.	223,878	Jan. 27	826	220	17	171
Brown, Maurice T., Tyler, Tex. Coffee-roaster.	234,952	Nov. 30	1417	381	18	1250
Brown, Morgan W., Brooklyn, assignor to F. Emack, Hempstead, N. Y. Slate-frame.	227,674	May 18	678	194	17	1110
Brown, Nathan L., Brownsdale, Pa. Drag-saw.	231,474	Aug. 24	1008	284	18	431
Brown, Owen P., and W. S. Deidrich, Smithville, Ga. Marking attachment for plows.	230,231	July 20	846	239	18	155
Brown, Robert G., New York, N. Y., assignor to S. S. White, Philadelphia, Pa. Electric speaking-telephone.	224,138	Feb. 3	190	54	17	235
Brown, Rollin G., De Witt, Iowa. Grain-tally.	227,409	May 11	375	110	17	1050
Brown, Russell R. (See Kenworthy, William, assignor.)						
Brown, Samuel, Worcester, Mass. Plowman's boot.	225,103	Mar. 2	145	42	17	481
Brown, Samuel W., Alliance, Ohio. Sawing-machine.	233,597	Oct. 26	1016	283	18	931
Brown, Sanderson, Hope Valley, R. I. Steam-boiler.	228,978	June 22	1019	277	17	1408
Brown, Silas M., Marengo, Ohio. Piston-packing.	235,736	Dec. 21	833	233	18	1435
Brown, Simeon B. (See Hurd and Brown.)						
Brown, Sylvester C., Mount Pleasant, Mich. Wagon-box.	233,655	Oct. 26	1083	301	18	942
Brown, Thomas H., Chicago, Ill. Trotting-sulky.	223,215	Jan. 6	7	2	17	3
Brown, Thomas H., Milwaukee, Wis. Carriage.	230,399	July 27	1685	305	18	199
Brown, Thomas S., assignor of one-half to J. P. Adriance, Poughkeepsie, N. Y. Horse-rake. (Reissue.)	9,505	Dec. 21	970	269	18	1459
Brown, Thomas W., Belmont, Mass. Egg-beater.	229,372	June 29	1467	404	17	1478
Brown, Thomas W., Belmont, Mass. Egg-beater.	232,328	Sept. 21	552	152	18	630
Brown, Thomas W., Summerset, Iowa. Animal-poke.	230,860	Aug. 10	319	94	18	307
Brown, William, Green Point, N. Y. Barrel-lifter.	224,137	Feb. 3	189	54	17	235
Brown, William, Fort Cameron, Utah. Railway-tie.	231,755	Aug. 31	1345	378	18	490
Brown, William H. H. (See Ring, Jacob, assignor.)						
Brown, William P., Zanesville, Ohio. Plow.	232,450	Sept. 21	707	195	18	655
Brown, William T. (See Kirk, Lewis, assignor.) (Reissue.)						
Browne, Arthur W., Pleasant Plains, N. Y. Strength-tester.	233,918	Nov. 2	104	27	18	1004
Browne, B. Bernard, et al. (See Fisher, James S., assignor.)						
Browne, Bridget, administratrix. (See Browne, James W.)						
Browne, George, Philadelphia, Pa. Can-nozzle.	224,577	Feb. 17	705	201	17	350
Browne, James W., Brooklyn, N. Y., (B. Browne, administratrix.) Weather-strip.	232,387	Sept. 21	626	172	18	642
Browne, John X., assignor of one-half interest to C. H. Quail, Brooklyn, N. Y. Inking-fountain for printing-machines.	229,303	June 29	1381	379	17	1467
Browne, Joseph S., D. W. Ballentine, and G. M. Turner, Portsmouth, Va. Station and cargo indicator.	230,692	Aug. 3	111	32	18	264
Browne, Josiah H., Salem, Mass. Key-hole guard.	227,725	May 18	746	210	17	1120
Browne, Oliver L. F., Syracuse, N. Y. Apparatus for the evaporation of liquids.	235,618	Dec. 21	698	198	18	1412
Browne, William T., Stockton, Cal. Car-truck.	225,741	Mar. 23	902	263	17	642
Browne, William T., Stockton, Cal. Railway-car truck.	235,852	Dec. 28	993	275	18	1470
Brownell, Daniel N., Kalamazoo, Mich. Stock-car.	235,337	Dec. 14	350	96	18	1347
Brownell, George W., St. Louis, Mo. Car-axle box.	225,269	Mar. 9	331	97	17	527
Browning, Ross C., Orange, N. J. Wringer.	229,666	July 6	177	49	18	35
Browning, William E., assignor of one-half interest to S. Floyd, Sweet Water, Tenn. Mill-stone-dressing machine.	229,858	July 13	414	{ 114 115 }	{ 18 18 }	{ 78 78 }
Brownlee, Thomas. (See Swickard, John W., assignor.)						
Brubaker, Daniel, Fulton, N. Y. Cockle-separator.	228,310	June 1	177	50	17	1255
Bruce, Edward C., Winchester, Va. Catapult.	223,274	Jan. 6	78	20	17	16

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Bruce, Elgin K., Keokuk County, Iowa, and J. M. Bruce, Pittsburg, Pa., assignors to E. M. Lang, Portland, Me. Apparatus for sealing fruit-cans. (Reissue).....	9,025	Jan. 6	255	68	17	46
Bruce, John B., Sunny Dale, Kans., assignor of one-half interest to W. M. Summers, Cleopatira, Mo. Plow.....	223,987	Feb. 3	17	6	17	205
Bruce, John M. (See Bruce, Elgin K. and J. M.) (Reissue.).....						
Bruce, Mary E., New York, N. Y. Pattern-chart for cutting dresses.....	229,088	June 22	1138	{ 310 311 }	17	1425
Bruce, Norman H., West Troy, assignor of one-half interest to C. F. North, Cohoes, N. Y. Flexible center-button.....	227,479	May 11	456	131	17	1064
Brucek, Gustav, New York, N. Y. Fan.....	234,750	Nov. 23	1159	319	18	1202
Brenning, William, New York, N. Y. Lamp-wick attachment.....	235,504	Dec. 14	553	158	18	1382
Brüggen, Hans, New York, N. Y. Refrigerator.....	224,383	Feb. 10	474	136	17	301
Brundage, James E., assignor to himself and H. Valentine, Brooklyn, N. Y. Bottle-stopper fastener.....	224,327	Feb. 10	410	117	17	290
Brundred, Benjamin F. (See Edelen, William R., assignor.).....						
Brundred, William J., Oil City, Pa. Ticket-punch.....	224,271	Feb. 10	345	99	17	280
Brunk, Anthony, et al. (See Stevens, Franklin B., assignor.).....						
Brunnemer, John, et al. (See Möller, John A., assignor.).....						
Brunner, Charles, Peru, Ill. Combined vice and drill.....	226,709	Apr. 20	670	187	17	880
Brunner, Christian, Newton, Iowa. Corn-planter.....	226,274	Apr. 6	141	40	17	771
Bruns, Friedrich A., New York, N. Y. Apparatus for purifying air.....	229,374	June 29	1469	404	17	1479
Brunswick and Balke Company, J. M. (See Bensinger and Goodrich, assignors.).....						
Brunton, David W., Silver Peak, Nev. Leaching ores.....	228,032	May 25	1110	316	17	1189
Brush, Charles F., Cleveland, Ohio. Dynamo-electric apparatus.....	224,511	Feb. 17	623	181	17	336
Brush, Charles F., Cleveland, Ohio. Magneto-electric machine. (Reissue).....	9,410	Oct. 12	652	{ 179 180 }	18	854
Brush, Charles F., Cleveland, Ohio. Automatic cut-out apparatus for electric lights or motors.....	234,456	Nov. 16	783	{ 210 211 }	18	1133
Brutton, Charles H., administrator. (See Ehrhardt, Louis H. G.).....						
Bryan, Franklin C., Winona, Minn. Sulky-plow.....	225,105	Mar. 2	146	42	17	432
Bryan, James. (See Mather, Henry, assignor.).....						
Bryan, Oliver, New York, N. Y. Hot-air furnace.....	234,232	Nov. 9	500	138	18	1078
Bryant, Calvin, Keene, N. H. Circular sawing machine.....	230,175	July 20	783	{ 218 219 }	18	145
Bryant, Daniel W. (See Knehue and Bryant.).....						
Bryant, Edson L., assignor to Wallace & Sons, Ansonia, Conn. Cigar-light.....	223,704	Jan. 20	605	162	17	125
Bryant, Edson L., assignor to Wallace & Sons, Ansonia, Conn. Hanging or suspension lamp.....	226,708	Apr. 20	670	186	17	879
Bryant, Hezekiah H., assignor to W. W. Warren, trustee, Boston, Mass. Branding-stamp.....	226,707	Apr. 20	669	186	17	879
Bryant, John L. Hillsdale, Mich. Drill.....	226,043	Mar. 30	1280	360	17	716
Bryant, Seymour, Andes, N. Y. Stanchion-fastener.....	226,706	Apr. 20	668	186	17	879
Bryden, Williamson, Chelsea, Mass. Mouth-shield for horses.....	230,401	July 27	1086	306	18	199
Bryer, Samuel G., Saugus, Mass. Rock-drilling machine.....	227,872	May 25	932	267	17	1162
Bryson, Michael A., St. Louis, Mo. Pannier. (Reissue).....	9,178	Apr. 27	1148	314	17	966
Buchanan, Charles G., Brooklyn, N. Y. Stone-crusher.....	231,530	Aug. 24	1073	301	18	441
Buchanan, William, and J. M. Toney, New York, N. Y., and H. I. Hoyt, Norwalk, assignors to Railway Combustion Company, Bridgeport, Conn. Coal-burning locomotive.....	224,640	Feb. 17	778	220	17	361
Bucher, George W., Waverly, Md. Hot-air register.....	234,369	Nov. 9	655	179	18	1104
Buchter, Henry, Louisville, Ky. Molding-machine. (Reissue).....	9,358	Aug. 31	1503	421	18	514
Buck, D. Azro A., Waterbury, Conn. Watch.....	234,233	Nov. 9	501	138	18	1079
Buck, D. Azro A., Waterbury, Conn. Watch-case.....	234,234	Nov. 9	502	138	18	1079
Buck, D. Azro A., Waterbury, Conn. Stem-winding watch.....	234,235	Nov. 9	503	{ 138 139 }	18	1079
Buck, D. Azro A., Waterbury, Conn. Stem-winding watch.....	234,236	Nov. 9	504	139	18	1079
Buck, D. Azro A., Waterbury, Conn. Watch-dial.....	234,237	Nov. 9	505	139	18	1079
Buck, George H., Uto Creek, N. Mex. Terr., assignor of one-half interest to L. Flagg, Central Falls, R. I. Catarrh-snuff.....	233,656	Oct. 26	1084	.....	18	942
Buck James G. H., Dallas, Texas. Recording ballot-box.....	224,385	Feb. 10	477	{ 136 137 }	17	301
Buck, Joshua S., Oakland, Cal. Amalgamating-mortar.....	235,505	Dec. 14	556	158	18	1382
Buckeye Engine Company. (See Thompson, Joseph W., assignor.).....						
Buckingham, Catharins P., Chicago, Ill. Plow-beam.....	231,147	Aug. 17	641	181	18	364
Buckingham, Edward L., Jefferson, Wis. Flexible band for bending wood.....	228,597	June 8	531	142	17	1319
Buckingham, Robinson, and C. W. Poindexter, Alto Pass, Ill. Fruit and vegetable packer.....	223,476	Jan. 13	333	89	17	72
Buckingham, Thomas, St. Cnnegonde, Montreal, Quebec, Canada. Sleigh.....	233,200	Oct. 12	498	137	18	827
Buckley, Channcey, assignor to C. Parker Company, Meriden, Conn. Match-box.....	228,598	June 8	532	142	17	1319
Buckley, William H. (See Estes and Buckley.).....						
Buckman, Alexander, assignor of one-half interest to D. W. Seeley, Albany, N. Y. Baling-press.....	230,736	Aug. 3	159	47	18	272
Buckman, Lucinda A., Needham, Mass. Preparing absorbent cotton.....	227,480	May 11	458	.....	17	1064
Buck's Stove Company. (See Clement, Benjamin F., assignor.).....						
Budd, Walter J., et al. (See Peters, John E., assignor.).....						
Buell, Charles E., New Haven, Conn. Telephone.....	232,675	Sept. 28	962	264	18	705
Buell, Charles E., New Haven, Conn. Telephone.....	232,676	Sept. 28	963	264	18	705
Buell, Charles E., New Haven, Conn. Telephone.....	232,677	Sept. 28	964	264	18	706
Buell, Charles E., New Haven, Conn. Electric light for burglar-alarms.....	232,678	Sept. 28	965	265	18	706
Buell, Charles E., New Haven, Conn. Apparatus for using compressed air.....	234,751	Nov. 23	1160	313	18	1202
Buell, Clinton C., Rock Falls, Ill., and J. G. Cudworth, Anamosa, Iowa. Milk-cooler.....	232,388	Sept. 21	627	173	18	642
Buell, Harriet J., New York, N. Y. Combined folding chair and pillow-rest.....	224,272	Feb. 10	347	100	17	280
Buermann, August, Newark, N. J. Spur.....	228,441	June 8	332	91	17	1290
Buffalo Dental Manufacturing Company. (See Seamans, Irving M., assignor.).....						
Buffalo Dental Manufacturing Company. (See Snow, George B., assignor.).....						
Buffalo Dental Manufacturing Company. (See Snow, George B., assignor.) (Reissue.).....						
Buffalo Dental Manufacturing Company. (See Snow and Seamans, assignors.).....						
Buffalo Scale Company. (See Bidwell, Carl H., assignor.).....						
Buffham, William S., et al. (See Reid, William A., assignor.).....						
Bugbee, George G., Gonzales, Tex. Balance staff and wheel for watches.....	227,726	May 13	747	210	17	1120
Bugbee, George G., Gonzales, Tex. Buckle.....	234,849	Nov. 30	1292	347	18	1230
Bugbee, George W. (See Doane and Bugbee.).....						
Bugbee, George W. (See Doane, Passel, and Bugbee.).....						
Buhler, Matthew, et al. (See Lupton, Addison, assignor.).....						
Bühlmann, Theodor, Mülheim, Switzerland. Apparatus for separating and cleaning grits, &c.....	231,395	Aug. 24	927	261	18	418
Buice, James D., La Grange, Ga. Filter for coffee.....	233,598	Oct. 26	1017	253	18	931
Bujac, James, Catonsville, Md., assignor of one-half to W. W. Eaton, Hartford, Conn. Ore furnace and reducer.....	234,170	Nov. 9	422	115	18	1065
Buil, Jacob H., Herford, Md. Car-coupling.....	229,599	June 8	532	142	17	1319

## Alphabetical list of patentees—Continued.

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			Spec.	Dr'g.	Vol.	Page.
Bull, John, Chattanooga, Tenn. Attachment for stirrup-straps.....	227,727	May 18	748	210	17	1120
Bullard, Charles W., assignor of two-thirds interest to C. R. Larrabee and R. L. North, Chicago, Ill. Door-hanger.....	233,836	Nov. 2	11	3	18	988
Bullard, James H., Springfield, Mass., assignor to D. B. Wesson. Revolving fire-arm.....	227,481	May 11	458	131	17	1064
Bullock, Walter H., Chicago, Ill. Turn-table for microscope-slides.....	226,648	Apr. 20	607	169	17	869
Bullock, George, <i>et al.</i> (See Bold, Fred, assignor.)						
Bullock, George A., Norwich, Conn. Brake-shoe.....	232,933	Oct. 5	166	44	18	765
Bullock, William R. (See Wiard and Bullock.)						
Bullymore, Richard, Buffalo, N. Y. Ice-house.....	229,951	July 13	515	142	18	94
Bulot, Pierre Z. S., Paris, France. Stud and button.....	225,337	Mar. 9	429	125	17	541
Bultmann, C. Friedrich A., Sumter, S. C. Indicator.....	235,411	Dec. 14	432	122	18	1361
Bumgardner, David, Meridian, Miss. Feather-cleaner.....	224,384	Feb. 10	476	136	17	301
Bumpus, Delos H., Edenburg, Pa. Lubricator.....	233,323	Oct. 19	672	185	18	864
Bundock, Samuel. (See Pease, Addison, assignor.)						
Bundy, Willard L., Auburn, N. Y. Calendar-clock movement.....	225,968	Mar. 30	1189	338	17	701
Bunnell, Jesse H., New York, N. Y. Electro-magnet.....	226,485	Apr. 13	395	112	17	824
Bunnell, Orville M., Aurora, and N. M. Tenney, Plano, Ill. Mechanical motor.....	227,728	May 18	748	210	17	1120
Bunting, Thomas B. (See Brannon and Bunting.)						
Butt, Mathias W. C., Bonneauville, Pa., assignor to D. C. Wantz. Blacksmith's forge.....	232,174	Sept. 14	354	99	18	590
Burbank, Abner, assignor of one-half interest to T. Moulson, Rochester, N. Y. Culinary steamer.....	231,266	Aug. 17	786	220	18	387
Burbridge, James, R. C. Thorpe, and T. Oakley, Tottenham, county of Middlesex, England. Composition for elastic rollers.....	223,880	Jan. 27	827	.....	17	171
Burecy, Charles J. T., Binghamton, N. Y. Alcohol-still.....	229,585	July 6	92	25	18	22
Burch, John O., Indianapolis, Ind. Washing-machine.....	229,030	June 22	1074	293	17	1416
Burchard, Florence L., <i>et al.</i> (See Fanning, John, assignor.)						
Burden, David T., Carrollton, Ga. Machine for filing gin-saws.....	232,679	Sept. 28	965	265	18	706
Burden, Frederick C. (See Burden, William H. and F. C.)						
Burden, William H. and F. C., Cleveland, Ohio. Car-axle oiler.....	226,710	Apr. 20	672	187	17	880
Burdett, Oliver H., New Athens, Ohio. Traction-engine.....	224,668	Feb. 24	1059	302	17	423
Burdge, Henry R., assignor to himself and C. Feurth, Cape Girardeau, Mo. Sulky-cultivator.....	224,139	Feb. 3	190	55	17	235
Burdick, Irving F., North Stonington, Conn. Vehicle sand-band.....	224,641	Feb. 17	780	221	17	361
Burdick, James M., Brownsburg, Pa. Hay-tedder.....	226,711	Apr. 20	673	187	17	880
Burdon, George R., Providence, R. I. Combined hose connection and sprinkler.....	224,513	Feb. 17	627	181	17	337
Buren, Fielding P., and W. W. Fenton, Quincy, Ill. Shank for boots and shoes.....	226,486	Apr. 13	397	112	17	825
Burge, Reason A., and E. A. Quinby, Memory, Iowa. Car-brake.....	226,275	Apr. 6	142	40	17	771
Burgess, Andrew, Owego, N. Y. Magazine-gun.....	224,994	Mar. 2	13	4	17	458
Burgess, Andrew, Owego, N. Y. Magazine fire-arm.....	235,204	Dec. 7	178	48	18	1310
Burgess, Charles M., New Britain, and R. Sanford, Newington, assignors to Russell & Erwin Manufacturing Company, New Britain, Conn. Sash-fastening.....	234,387	Nov. 16	704	189	18	1120
Burgess, Daniel. (See Russell and Burgess.)						
Burgess, Edward G. (See Gill, Phillip H., assignor.)						
Burgess, George W., Skowhegan, Me. Cabinet for sewing and other machines.....	224,993	Mar. 2	12	4	17	458
Burgess, Horatio G. (See Taylor and Burgess.)						
Burgess, Hugh, Royer's Ford, Pa. Concentrating alkaline solutions.....	229,090	June 22	1141	311	17	1425
Burgess, Hugh, Royer's Ford, Pa. Separating graphite from foreign matter.....	229,669	July 6	180	50	18	35
Burgess, Joseph A., Worcester, Mass. Sewer-gas trap.....	227,411	May 11	377	111	17	1050
Bürgin, Emil, Basel, Switzerland. Magneto-electric machine.....	224,642	Feb. 17	780	221	17	361
Bürgin, Emil, Basel, Switzerland. Magneto-electric machine. (Reissue).....	9,438	Nov. 2	340	94	18	1043
Burin, Henri, New York, N. Y. Device for cutting off and screw-threading metal rods.....	225,048	Mar. 2	89	24	17	471
Burin, Henri B., New York, N. Y. Velocipede.....	234,954	Nov. 30	1419	382	18	1251
Burk, John J., assignor of one-half interest to E. M. Jewett, Buffalo, N. Y. Machine for driving nails.....	231,475	Aug. 24	1009	284	18	431
Burk, William B. (See Ritter, Reuben, assignor.)						
Burk, William E. (See Grout and Burk.)						
Burk, William H., Greencastle, Ind. Peanut-roaster.....	225,561	Mar. 16	689	202	17	596
Burkart, John M. (See Burkart, William and J. M.)						
Burkart, William, Smithville, Ind., and J. M. Burkart, Canton, Kans. Leaf-turner.....	228,600	June 8	534	142	17	1319
Burke, Dominic, New York, N. Y. Water-closet basin.....	233,470	Oct. 19	846	233	18	892
Burke, Isaac, Sacramento, Cal. Sulky-plow.....	223,681	Jan. 27	828	221	17	171
Burke, Thomas, Portsmouth, Va. Device for swaging screw-threads on eyebolts.....	228,033	May 25	1111	316	17	1189
Burkett, Andrew J., Ottumwa, Iowa. Ornamentation of leather.....	228,727	June 15	707	194	17	1356
Burkhart, Jacob, Washington, D. C. Beer-cooler.....	224,869	Feb. 24	1061	302	17	423
Burkholder, John W., Moline, Ill. Hand-drill.....	234,109	Nov. 2	338	93	18	1043
Burks, Jesse H., San Luis Obispo, Cal. Fruit-drier.....	227,482	May 11	459	132	17	1064
Burleigh, Charles H., and W. A. Wheeler, Worcester, Mass. Wind-engine.....	233,977	Nov. 2	182	46, 47	18	1016
Burleigh, John L., <i>et al.</i> (See Duffy, James F., assignor.)						
Burlingham, William, Baltimore, Md. Pump.....	232,629	Sept. 28	908	250	18	697
Burnap, Charles F., Allegheny, assignor to R. Bagaley, Pittsburg, Pa. Gas or vapor burner.....	233,065	Oct. 12	334	93	18	800
Burner, John J. and L. F., Stonewall, Va. Fertilizer-distributor.....	235,738	Dec. 21	835	234	18	1435
Burner, Lemuel F. (See Burner, John J. and L. F.)						
Burnett, Charles C., Iowa City, Iowa. Combined sifter and bucket.....	232,237	Sept. 14	435	119	18	604
Burnett, John, and F. M. Watkins, Cincinnati, Ohio. Water-heater.....	226,221	Apr. 6	84	22	18	761
Burnett, Robert A. (See Ogle, Joseph D., assignor.)						
Burnett, William H., Mount Kisco, N. Y. Milk-can.....	231,531	Aug. 24	1074	302	18	441
Burnham, Francis H., Ipswich, Mass. Windlass for binding hay on wagons.....	230,610	Aug. 3	13	4	18	249
Burnham, George, <i>et al.</i> (See Longstreth, Edward, assignor.) (Reissue.)						
Burnham, George H., <i>et al.</i> (See Bowers, John M., assignor.)						
Burnham, Lyeurgus. (See Morse and Burnham.)						
Burnham, Walter, Chicago, Ill., assignor to C. M. Beard, Elroy, Wis. Clutch for bow-strings.....	229,089	June 22	1140	311	17	1425
Burns, Charles M., Jr., Philadelphia, Pa. Sash-fastener.....	226,033	Mar. 30	1266	357	17	713
Burns, Edward, Broad Ford, Pa. Coke-oven.....	232,289	Sept. 21	628	173	18	643
Burns, Henry S., assignor to Winchester Repeating Arms Company, New Haven, Conn. Cartridge-loading machine.....	232,238	Sept. 14	435	119	18	604
Burns, John, assignor of one-half interest to T. E. Haslehurst, J. B. Anthony, and S. E. Babcock, Troy, N. Y. Steam water-meter.....	230,232	July 20	846	240	18	155
Burns, John, assignor of one-half interest to T. E. Haslehurst, J. B. Anthony, and S. E. Babcock, Troy, N. Y. Steam-trap.....	230,233	July 20	849	240	18	155
Burns, Morgan, assignor of one-half interest to O. A. Bogue, Hyde Park, Ill. Dumping-car.....	230,918	Aug. 10	381	110	18	316
Burns, Morgan, assignor of one-half interest to O. A. Bogue, Hyde Park, Ill. Uniting wrought and cast iron.....	231,532	Aug. 24	1075	302	18	441
Burns, Peter. (See Brown, Alexander T., assignor.)						

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Burns, Peter, assignor of one-half interest to S. S. McNaughton, Chicago, Ill. Machine for handling railway ties and iron in track-laying.	231,897	Sept. 7	23	5	18	523
Burns, Robert E., San Francisco, Cal. Fruit-drier.	234,115	Nov. 9	359	99	18	1053
Burr, Amos A., Rockdale, N. Y. Saw.	225,795	Mar. 23	972	280	17	653
Burr, Bradley, assignor to A. A. Abbott, Chicago, Ill. Sleigh.	231,397	Aug. 24	928	262	18	418
Burr, George W., East Line, N. Y. Running-gear for wagons.	228,311	June 1	179	50	17	1255
Burr, John, et al. (See Rushforth, William H., assignor.)						
Burr, Melbourne C., Minneapolis, Minn. Carriage-jack	226,971	Apr. 27	986	274	17	942
Burr, Remus D., Kingsborough, N. Y. Glove.	234,528	Nov. 16	866	231	18	1147
Burr, Sanford S., Chicago, Ill. Folding er cabinet bedstead.	230,105	July 20	706	197	18	133
Burr, Sanford S., Chicago, Ill. Folding bedstead. (Reissue.)	9,393	Sept. 28	1117	305	18	731
Burrell, Allen M., A. R. Miner, and J. W. Bedge, Canisteo, N. Y. Window-screen	231,649	Aug. 31	1221	343	18	471
Burrell, David H., et al. (See Dougherty, John B., assignor.)						
Burrell, David H., et al. (See Naylor, James, Jr., assignor.)						
Burrell, David H., Little Falls, and J. Naylor, Jr., Rochester, assignors to said Burrell and } Burrell, Ives & Co., Little Falls, N. Y. Machine for dressing and finishing barrel-hoops. }	233,471	Oct. 19	847	{ 233 234 }	18	892
Burrell, David H., Little Falls, and J. Naylor, Jr., Rochester, assignors to Whitman & Bur- rell and D. H. Burrell, Little Falls, N. Y. Machine for cutting barrel-hoops from the log.	233,472	Oct. 19	849	231	18	893
Burrell, Ives & Co. (See Burrell and Naylor, assignors.)						
Burrell, Ives & Co., et al. (See Dougherty, John B., assignor.)						
Burrell, Ives & Co., et al. (See Naylor, James, Jr., assignor.)						
Burrell, Lory W., Minneapolis, Minn. Tug-hook and clevis.	235,991	Dec. 28	1162	322	18	1498
Burridge, Sarah N., Somerville, Mass. Head.	232,934	Oct. 5	167	44	18	765
Burridge, Thomas H., assignor of one-half interest to G. W. Ware, St. Louis, Mo. Car- axle box.	231,993	Sept. 7	146	38	18	547
Burrier, George W., Lyon County, assignor of one-half interest to J. Rothenbueher, Vir- ginia City, Nev. Combined harrow and lever.	231,650	Aug. 31	1222	344	18	471
Burrill, Joseph. (See Hudson and Burrill.)						
Burritt, Elihu, Elgin, Ill. Dentist's chair.	228,979	June 22	1019	277	17	1408
Burritt, Harvey H., assignor of one-half interest to W. A. Thompson, Newark, N. J. Com- pound engine for canal-steamers.	230,737	Aug. 3	162	48	18	273
Burroughs, Alma P., Seneca Falls, N. Y. Time-signal for railways.	230,738	Aug. 3	164	48	18	273
Barroughs, Caleb C., Decatur, Ill. Beater for corn-shellers.	233,066	Oct. 12	335	93	18	800
Burroughs, David W., Greenfield, Ill. Hedge-trimmer.	231,396	Aug. 24	927	262	18	418
Burrowes, Christopher F., Springfield, Mass. Banjo.	224,512	Feb. 17	626	181	17	337
Burrows, George H., Somerville, Mass. Carbureting apparatus.	233,978	Nov. 2	184	47	18	1017
Burrows, George H., Boston, Mass. Carbureting apparatus.	234,955	Nov. 30	1420	382	18	1251
Burt, Edwin M., Harvard, Ill. Gate.	230,609	Aug. 3	12	3	18	249
Burtis, Arthur L., Leekport, N. Y. Mop-wringer.	228,601	June 8	535	143	17	1319
Burtis, Samuel M., et al. (See Baldwin, Cadwell A., assignor.)						
Burtner, Benjamin F., Tuscola, Ill. Check-row corn-planter.	231,883	Sept. 7	1	1	18	525
Burton, Bethel, Brooklyn, N. Y. Magazine fire-arm.	232,880	Oct. 5	105	28	18	755
Burton, Charles H., Cleveland, Ohio. Steam-valve.	224,072	Feb. 3	121	35	17	223
Burton, George F., assignor of two-thirds interest to R. J. Flint and F. J. McLean, Menomo- nee, Wis. Wagon-lock.	224,070	Feb. 3	118	31	17	223
Burton, George F., assignor of two-thirds interest to R. J. Flint and F. J. McLean, Menomo- nee, Wis. Wagon-lock.	224,071	Feb. 3	119	35	17	223
Burton, George S. (See Moore, Henry E., assignor.)						
Burton, Henry J., et al. (See Emersen, Orlando S., assignor.)						
Burton, Henry J., et al. (See Griswold, John, assignor.)						
Burton, Joseph, et al. (See Weber, Theodore A., assignor.)						
Busby, Frederick H., San Francisco, Cal. Glove.	235,125	Dec. 7	74	23	18	1294
Busch, William, Schulenburg, Tex. Cotton-chopper.	227,879	May 25	934	268	17	1162
Buschlen, Samuel, and L. Sees, Port Elgin, Ontario, Canada. Latch.	230,861	Aug. 10	319	94	18	307
Busehner, Carl F., New York, N. Y. Railway.	227,729	May 18	749	211	17	1121
Baser, William H., and B. L. Shaw, Denison, Tex. Car-door fastening.	223,705	Jan. 20	605	162	17	125
Bush, Carl, New York, N. Y. Clay-digger.	232,674	Sept. 28	961	264	18	705
Bush, Edward M. (See Spray and Bush.)						
Bush, Henry F. (See Morrow and Bush.)						
Bush, Henry J., Westfield, Mass. Whip-ferrule.	232,452	Sept. 21	708	196	18	655
Bush, Ira D., assignor to M. E. Bush, Detroit, Mich. Combined deer belt and check.	223,477	Jan. 13	334	89	17	72
Bush, Isaac, Des Moines, Iowa. Farm-gate.	225,686	Mar. 23	840	244	17	632
Bush, Mary E. (See Bush, Ira D., assignor.)						
Bush, Richard, Brooklyn, N. Y. Rotary pump.	224,870	Feb. 24	1063	303	17	423
Bush, Richard, Brooklyn, N. Y. Pump.	232,935	Oct. 5	168	44	18	765
Bushaw, Ruby Z., Minneapolis, Minn. Grain-separator.	235,739	Dec. 21	836	234	18	1435
Bushnell, Edwin L., Poughkeepsie, N. Y. Spring for beds.	235,338	Dec. 14	351	96	18	1347
Bushnell, Oscar P., Worcester, Mass. Press.	231,994	Sept. 7	147	38	18	548
Bushnell, Solon H., Fairport, N. Y. Horse hay-rake.	229,864	July 13	420	116	18	79
Buss, Edward, Arbon, Switzerland, assignor to C. M. Sombart, Magdeburg, Prussia. Gas- engine.	226,972	Apr. 27	987	274	17	942
Buss, Ellsworth T., Newton, Mass. Car-spring.	234,856	Nov. 30	1293	347	18	1230
Buss, Ezra, Springfield, Ohio. Filter.	227,954	May 25	1025	293	17	1176
Bussey, Esck, assignor of one-half interest to C. A. McLeod, Troy, N. Y. Stove and fur- nace grate.	223,988	Feb. 3	18	6	17	205
Bussey, McLeod & Co. (See Becker, Edward, assignor.)						
Bussey, William H., Chicago, Ill. Shoe.	231,398	Aug. 24	929	262	18	418
Busied, Richard, Brooklyn, N. Y. Step for locomotives.	230,739	Aug. 3	165	48	18	273
Butcher, James J. (See Butcher, John S., assignor.)						
Butcher, John S., Yorktown, assignor to himself and J. J. Butcher, Bridgeport, N. J. Lamp- chimney protector.	230,466	July 27	1167	329	18	213
Butcher, Joseph, assignor to Joseph Butcher Manufacturing Company, New York, N. Y. Machine for sewing sweat-linings into hats.	233,657	Oct. 26	1084	302	18	942
Butcher Manufacturing Company, Joseph. (See Butcher, Joseph, assignor.)						
Butcher, William, London, England. Railway fish-plate.	234,529	Nov. 16	866	231	18	1147
Butler, Calvin L., Greenfield, assignor to J. Russell Cutlery Company, Turner's Falls, Mass. Carving-fork.	229,802	July 13	349	98	18	68
Butler, Charles C., Paris, Ill. Cylinder printing-machine.	230,740	Aug. 3	165	49	18	273
Butler, David P., Boston, Mass. Exercising-machine.	223,798	Jan. 27	723	195	17	155
Butler, David P., Boston, Mass. Exercising-machine.	223,799	Jan. 27	724	196	17	155
Butler, Earhart & Co. (See Lampert and Huber, assignors.)						
Butler, Francis C., assignor of one-half interest to E. Ward, Newark, N. J. Gig-pad-hensing.	227,610	May 18	605	174	17	1099
Butler, Francis G., assignor to Vermont Farm Machine Company, Bellows Falls, Vt. Milk- cooler.	228,602	June 8	536	143	17	1319



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Butler, Francis G., West Hartford, Conn., assignor to Vermont Farm Machine Company. Milk-setting apparatus. (Reissue).....	9,302	July 20	1037	293	18	183
Butler, George E., <i>et al.</i> , executors. (See Suplee, Albert H.) (Reissue.)						
Butler, Joseph C. (See Butler, William E. and J. C.)						
Butler, Manlove, assignor of one-half interest to B. C. Baker, Vernon, Ind. Horse hay-rake.	223,316	Jan. 6	130	33	17	24
Butler, Orange, <i>et al.</i> (See Harrison, Jonathan W., assignor.) (Reissue.)						
Butler, Orange, <i>et al.</i> (See Whitcomb, George D., assignor.)						
Butler, William E. and J. C., Eagle City, Iowa. Wire-barbing machine.....	226,276	Apr. 6	143	41	17	772
Butler, William P., Chicago, Ill. Vapor-burner.....	234,238	Nov. 9	506	139	18	1079
Butt, George, <i>et al.</i> (See Nichols, Moses O., assignor.)						
Butt, Ze, Ocala, Fla. Dumping-cart.....	226,649	Apr. 20	608	170	17	869
Butterfield, F. D. (See Young, Lewis A., assignor.)						
Butterfield, John C., Chicago, Ill. Stamp-mill.....	230,611	Aug. 3	14	4	18	249
Butterfuss, Philip, Winterset, Iowa. Rack for farm-wagons.....	231,003	Aug. 10	474	135	18	330
Butters, Charles E. (See Bangs and Pierce, assignors.)						
Butters, Charles E., <i>et al.</i> (See Pierce, George H., assignor.)						
Butterworth, William, Morris, Ill. Gate.....	224,643	Feb. 17	781	221	17	362
Button, B. G. (See Hickey, George J., assignor.)						
Butts, Thomas W. (See Darrin, Henry A., assignor.)						
Butts, William, Petaluma, Cal. Preparing beans, pease, &c., for food.....	226,712	Apr. 20	673	-----	17	880
Butz, Edward M., Allegheny, Pa. Fire-proof building.....	223,275	Jan. 6	80	20	17	16
Buzzell, John G., Lynn, Mass. Buffing-roller.....	232,333	Sept. 21	555	153	18	631
Buzzell, John G., Lynn, Mass., assignor to F. Winslow, trustee. Machinery for finishing boots and shoes.....	233,067	Oct. 12	336	93	18	800
Byam, Eber C., Rochester, N. Y. Sash-lock.....	226,487	Apr. 13	397	112	17	825
Byam, Eber C., Rochester, N. Y. Sash-holder.....	226,488	Apr. 13	398	112	17	825
Byers, Anthony W., and J. C. Dorser, Sherman, Tex. Cotton-planter.....	233,725	Oct. 26	1159	322	18	955
Byers, A. T. (See Wraight, Thomas E., assignor.)						
Byers & Co., A. M. (See Myers, Samuel, assignor.)						
Byfield, John, Stratford, Ontario, Canada. Feed mechanism for circular-knitting machines.....	231,476	Aug. 24	1012	{ 284 285 }	{ 18 17 }	432
Byington, Mirabeau L., Milledgeville, Ga. Turbine water-wheel.....	227,880	May 25	936	268	17	1162
Byram, N. S., <i>et al.</i> (See Wittenberg, Charles, assignor.)						
Byrkett, Abijah R., Troy, Ohio. Earth-scraper.....	229,863	July 13	418	116	18	79
Byrkett, Abijah R., Troy, Ohio. Earth-scraper.....	231,148	Aug. 17	642	181	18	364
Byrne, George P. (See Griffith and Byrne.)						
Byrne, George P., <i>et al.</i> (See Shedlock, Alfred, assignor.)						
Byrnd, Ole J., Chicago, Ill. Slide-valve for steam-engines.....	226,713	Apr. 20	674	{ 187 188 }	{ 17 17 }	880
Cable, Austin D. (See Calef, Joseph W., assignor.)						
Cady, Benjamin J. (See McCauley and Cady.)						
Cady, George L., Lowell, Mass., assignor to C. C. Post, Burlington, Vt. Sap-spout. (Reissue).....	9,394	Oct. 5	317	88	18	790
Cady, Henry W., Pawtucket, R. I., assignor to Russell Manufacturing Company, Middletown, Conn. Loom for weaving tubular fabrics.....	226,594	Apr. 20	541	152	17	859
Cady, Monroe M. (See Lightcap, William H., assignor.)						
Caffall, Robert M., assignor of one-half interest to T. Hunt, St. Louis, Mo. Compound for waterproofing and preserving building materials.....	230,919	Aug. 10	382	-----	18	316
Cahill, Henry E. (See Le Roy, Henry, assignor.)						
Cahill, Le Roy, Kalamazoo, Mich. Sulky-plow carriage.....	229,375	June 29	1470	405	17	1479
Cahill, Le Roy, Kalamazoo, Mich. Sulky-plow.....	235,205	Dec. 7	179	49	18	1311
Cahoone, Edwin R., Newark, N. J. Harness-saddle tree.....	223,929	Feb. 3	19	7	17	206
Cahoone, Edwin R., and N. Teas, Newark, N. J., assignors to said Cahoone. Harness-saddle tree.....	223,990	Feb. 3	20	7	17	206
Cahoone, Edwin R., and N. Teas, Newark, N. J., assignors to said Cahoone. Coach or harness pad.....	223,991	Feb. 3	20	7	17	206
Cahoone, Edwin R., Newark, N. J. Harness-saddle.....	224,871	Feb. 24	1063	303	17	423
Cahoone, Edwin R., Newark, N. J. Coach-pad.....	232,113	Sept. 14	286	80	18	579
Cahoone, Edwin R., Newark, N. J. Safety-pad for horses.....	235,239	Dec. 14	351	96	18	1347
Cahoone, Edwin R., Newark, N. J. Coach-pad.....	235,506	Dec. 14	557	159	18	1382
Cailteau, Thimoléon, New York, N. Y. Electric gas-lighting device.....	223,578	Jan. 13	453	123	17	92
Cain, Charles E., Holland, Wis. Bob-sled.....	231,267	Aug. 17	787	220	18	387
Cain, John, Pittsburg, assignor, by mesne assignments, to Stearns Manufacturing Company, Erie, Pa. Head-block for saw-mills. (Reissue).....	9,074	Feb. 17	903	258	17	384
Calame, William, assignor to Robbins & Appleton, New York, N. Y. Watch-case.....	234,530	Nov. 16	867	231	18	1145
Caldwell, Henry W., St. Louis, Mo. Conveyer-box.....	233,324	Oct. 19	673	185	18	864
Caldwell, Henry W., St. Louis, Mo. Screw-conveyer.....	235,619	Dec. 21	699	198	18	1412
Caldwell, John. (See Taylor, James, assignor.)						
Caldwell, John, Louisville, Ky. Drag plow or shoe for grain-drills.....	230,235	July 20	851	241	18	155
Caldwell, John, and R. T. Vinson, Shreveport, La. Cotton-planter.....	231,757	Aug. 31	1346	379	18	490
Caldwell, John, and H. B. Winslow, Providence, R. I., assignors to Horton, Angell & Co. Sleeve-button. (Reissue).....	9,449	Nov. 9	670	182	18	1106
Caldwell, John, Shreveport, La., and O. E. Huss, Washington, D. C. Snow-shoe.....	234,655	Nov. 23	1048	282	18	1184
Caldwell, Loyd J., Bourbon, Ind. Feed-mill.....	225,562	Mar. 16	690	202	17	596
Caldwell, William H., New York, N. Y. Illuminated printing.....	230,741	Aug. 3	167	49	18	273
Calef, George W. (See White and Calef.)						
Calef, Joseph W., North Easton, Mass., assignor of one-half interest to A. D. Cable, Montreal, Canada. Wrench.....	226,490	Apr. 13	460	113	17	825
Calhoun, John C. (See Richardson and Calhoun.)						
Calhoun, Samuel S., and H. I. Miller, Millersburg, Ohio. Shingling-bracket.....	235,126	Dec. 7	75	23	18	1294
California Portland Cement Company. (See Easterby, Anthony Y., assignor.)						
Calkins, David N., assignor of one-half interest to M. T. Ellinwood and A. L. Scranton, Rochelle, Ill. Milk-cooler.....	233,726	Oct. 26	1161	323	18	955
Calkins, James B., Pacific, Mo. Locking-nut.....	234,239	Nov. 9	507	140	18	1080
Calkins, James B., Pacific, Mo. Car-door bolt.....	234,240	Nov. 9	508	140	18	1080
Calkins, Thomas L., New York, and F. O. Badger, Brooklyn, N. Y. Brush.....	231,004	Aug. 10	476	135	18	330
Calkins, Thomas L., New York, N. Y., and J. W. Cook, Jersey City, N. J. Machine for turning buttons.....	234,241	Nov. 9	508	140	18	1080
Calkins, William H. (See Beaty and Calkins.)						
Callahan, Charles, Lowell, Mass. Refrigerator.....	235,068	Dec. 7	10	3	18	1232
Callahan, Henry, Dayton, Ohio. Cement-ring for sheet-metal cans.....	233,326	Oct. 19	675	185	18	865
Callahan, John, <i>et al.</i> (See Perry, Arthur F., assignor.)						
Callen, Anson W. (See Histed, Thaddens C., assignor.)						
Callow, John J., Cleveland, Ohio. Spacing and lettering signs.....	229,952	July 13	517	143	18	94
Calo, Christopher G., Albany, N. Y. Hame-clasp.....	230,234	July 20	851	241	18	155

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Calvert, George L., and G. W. Blair, Muncie, Ind. Machine for forming eaves-troughs....	226,157	Apr. 6	9	3	17	748
Calvert, John N. (See Baker, Henry F., assignor.)						
Calvert, Joseph C. (See Gibson, John E., assignor.)						
Cambria Iron Company. (See Comer, Henry B., assignor.) (Reissue.)						
Cambria Iron Company. (See Davis, Frank B., assignor.)						
Cambria Iron Company. (See Morrell, Thomas T., assignor.)						
Cambria Iron Company. (See Williams, John R., assignor.)						
Camerer, William, Reading, Pa. Valve-motion.....	233,201	Oct. 12	498	137	18	827
Camerer, William, Reading, Pa. Coupling-rod for locomotive-engines.....	235,206	Dec. 7	180	49	18	1311
Cameron, James W., assignor to W. Bell, New York, N. Y. Packing for steam or water pipes.	226,387	Apr. 13	272	81	17	806
Cammann, Hermann H., New York, N. Y. Folding basket.....	232,680	Sept. 28	967	266	18	706
Camp, James T., La Fayette, Ohio. Animal-poke.....	224,140	Feb. 3	191	55	17	235
Camp, Mortimer M., New Haven, Conn. Pipe for drains, gas, and water.....	227,412	May 11	378	111	17	1050
Camp, Thomas, Covington, Ga. Cotton-condenser. (Reissue).....	9,234	June 8	676	186	17	1341
Camp, Wallace H., assignor to Scovill Manufacturing Company, Waterbury, Conn. Post-office-box door.....	224,141	Feb. 3	192	55	17	235
Camp, Wallace H., Waterbury, Conn. Machinery for cleaning and polishing sheet metal.	225,796	Mar. 23	973	280	17	653
Camp, Wallace H., assignor to Scovill Manufacturing Company, Waterbury, Conn. Post-office-box door.....	226,489	Apr. 13	399	113	17	825
Camp, Wallace H., assignor to Scovill Manufacturing Company, Waterbury, Conn. Post-office box.....	231,995	Sept. 7	148	38	18	548
Campbell, Abraham A., assignor to H. Franc, Washington, D. C. Pantaloon-protector....	229,031	June 22	1075	293	17	1416
Campbell, Andrew C., assignor of one-half interest to E. McLaughlin, Brooklyn, N. Y. Paper bag.....	227,147	May 4	74	20	17	990
Campbell, Angus K., Newton, Iowa. Heating and ventilating houses, &c.....	230,237	July 20	854	241	18	156
Campbell, Augustine, Perth Amboy, N. J. Pottery-shape for building-blocks.....	225,338	Mar. 9	430	125	17	541
Campbell, Chambers M., Nashville, Ohio. Invalid-bedstead.....	225,106	Mar. 2	147	43	17	482
Campbell, Charles A. J., assignor of one-fourth interest to W. K. Johnson, Philadelphia, Pa. Horseshoe.....	231,953	Sept. 7	91	24	18	538
Campbell, Charles L., Terre Haute, Ind. Drying-kiln.....	224,814	Feb. 24	1000	283	17	413
Campbell, Duncan H., assignor of three-fourths interest to H. B. Metcalf, F. E. Comey, and D. McNiven, Pawtucket, R. I. Sewing-machine.....	231,954	Sept. 7	92	24	18	539
Campbell, Frank, administrator. (See Carlisle, Henry, Jr.) (Reissue.)						
Campbell, Frank M., and A. C. Dunlevy, St. Louis, Mo. Skylight.....	222,443	June 8	333	91	17	1290
Campbell, Howard. (See Land and Campbell.)						
Campbell, James B., and J. Lindsay, Mount Sterling, Ky. Wash-board.....	231,005	Aug. 10	477	135	18	331
Campbell, James H. (See Corr, Columbus W., assignor.)						
Campbell, James W., New York, N. Y. Adjustable window-cornice.....	225,339	Mar. 9	431	125	17	541
Campbell, James W., New York, N. Y. Window-cornice.....	235,412	Dec. 14	433	122	18	1362
Campbell, John D., and J. S. Drake, New York, N. Y. Steam-muffler.....	224,644	Feb. 17	783	221	17	362
Campbell, John S., Plainfield, N. J. Hose-carriage.....	231,399	Aug. 24	930	262	18	418
Campbell, Joseph H., Pittsburg, assignor of one-sixteenth to H. T. Wiley, Boston, and one-eighth to F. Patterson, Buena Vista, Pa. Process of and apparatus for extinguishing fires.	234,531	Nov. 16	868	231	18	1148
Campbell, Marvin, South Bend, Ind. Combined step-ladder and ironing-board.....	227,346	May 11	309	90	17	1039
Campbell, Morgan. (See Gaston and Campbell.)						
Campbell, Peter, assignor of two-thirds interest to F. A. Neider and J. A. Hopkins, Augusta, Ky. Vehicle-spring.....	231,996	Sept. 7	148	39	18	543
Campbell, Richard K. (See Hartsook, Marius M., assignor.)						
Campbell, Robert E., Chicago, Ill. Mattress-frame.....	232,334	Sept. 21	556	153	18	631
Campbell, Thomas. (See Putnam, Charles B., assignor.)						
Campbell, William, Brooklyn, N. Y. Curtain-fixture.....	227,146	May 4	73	20	17	989
Campbell, William P., Hastings, Mich. Wood-cutting machine.....	227,955	May 25	1027	293	17	1176
Campen, John, Baltimore, Md. Soldering apparatus.....	232,681	Sept. 28	968	266	18	706
Campen, John, Baltimore, Md. Soldering-tool.....	232,936	Oct. 5	168	44	18	766
Campfield, Hampton R., Susquehanna Depot, Pa. Spark-arrester.....	228,442	June 8	332	91	17	1290
Campfield, Hampton R., Susquehanna Depot, Pa. Steam slide-valve.....	231,651	Aug. 31	1223	343	18	471
Canaday, Hugh H., Fairfield, Iowa. Sulky-plow.....	231,210	Aug. 17	726	204	18	377
Canby, William, et al. (See Egerton, C. Calvert, assignor.)						
Canby, William, et al. (See Hazelip, Joseph N., assignor.)						
Candee, Charles E., St. Louis, Mo. Axle-bearing.....	233,068	Oct. 12	337	93	18	800
Candee & Co., L. (See Earle, John E., assignor.)						
Candee & Co., L. (See Watkinson, George, assignor.)						
Candidas, Louis M., Brooklyn, N. Y. Apparatus for curing tobacco.....	224,142	Feb. 3	192	55	17	235
Candrian, Herman A., assignor to T. A. Kochs, Chicago, Ill. Barber's chair.....	233,140	Oct. 12	430	118	18	815
Candy, John, Rock Grove, Ill. Car-coupling.....	232,594	Sept. 28	869	240	18	690
Candey, William E., Rochester, Minn. Combined anvil and vise.....	225,563	Mar. 16	691	202	17	596
Canfield, William L. (See Suddoth and Canfield.)						
Canis, Franz, assignor to W. Colshorn, Hamburg, Germany. Key-hole guard.....	223,836	Jan. 27	770	206	17	163
Cannon, Clinton D., Battle Creek, Mich. Ladder.....	234,389	Nov. 16	706	190	18	1120
Cannon, Fred. C., New Haven, Conn. Machine for making button-backs.....	230,236	July 20	852	241	18	156
Cannon, Frederick C., New Haven, Conn. Carriage-lamp. (Reissue).....	9,328	Aug. 3	296	84	18	296
Cannon, George W. (See Deamnde and Cannon.)						
Cantrill, William B., Yreka, Cal. Rail-joint for bed-frames.....	230,526	July 27	1230	347	18	223
Cantrill, James E. (See Barkley, John L., assignor.)						
Capen, James W., Binghamton, N. Y. Reciprocating propeller.....	223,882	Jan. 27	830	221	17	171
Capen, Thomas W., assignor to Yale Lock Manufacturing Company, Stamford, Conn. Clutch-operating mechanism.....	229,092	June 22	1143	312	17	1426
Capewell, George A. and G. D., Woodbury, Conn. Charger for powder-flasks.....	231,533	Aug. 24	1076	302	18	441
Capewell, George D. (See Capewell, George A. and G. D.)						
Capewell, George J., et al. (See Mervesp, John J., assignor.)						
Capewell, George J. (See Talcott, Williams, and Capewell.)						
Capewell, George J., Cheshire, Conn. Roller-die machine for the manufacture of articles from metal.....	227,611	May 18	606	174 } 175 }	17	1069
Capewell, George J., Cheshire, Conn. Tack-driver.....	231,006	Aug. 10	477	136	18	331
Capewell, George J., Cheshire, Conn. Tack-extractor.....	233,599	Oct. 26	1017	283	18	931
Capron, Isaac N., Attleborough, Mass. Button, stud, &c.....	224,326	Feb. 10	479	137	17	302
Capron, Isaac N., and F. H. Sadler, North Attleborough, Mass. Detachable button.....	230,402	July 27	1087	306	18	200
Capron, Jacob, New York, N. Y. Speaking-tube.....	223,431	Jan. 13	280	74	17	63
Carburetted Air Gas Company. (See Boeklen, Reinhold, assignor.)						
Carburetted Air Gas Company. (See Heywood and Boeklen, assignors.)						
Card Automatic Brake Company. (See Card and Noble, assignors.)						
Card Automatic Brake Company. (See Card and Randolph, assignors.)						
Card Automatic Brake Company. (See Card, William L., assignor.)						
Card, William L., Moberly, and J. Noble, St. Louis, Mo., assignors to Card Automatic Brake Company. Automatic car-brake.....	223,317	Jan. 6	130	33	17	24



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Card, William L., Moberly, assignor to Card Automatic Brake Company, St. Louis, Mo. Steam-brake	224,145	Feb. 3	194	56	17	236
Card, William L. and D. S. Randolph, assignors to Card Automatic Brake Company, St. Louis, Mo. Automatic car-brake	231,535	Aug. 24	1078	303	18	441
Carey, James, Jr., Baltimore, Md. Shutter-awning	232,883	Oct. 5	109	29	18	756
Carey, John B., Boston, Mass. Railway-switch	229,671	July 6	181	50	18	35
Carey, John B., Boston, Mass. Railway-crossing	229,865	July 13	421	116	18	79
Carey, John B., Boston, Mass., assignor to Carey Switch Company, Hartford, Conn. Railway-switch	229,866	July 13	422	117	18	79
Carey Switch Company. (See Carey, John B., assignor.)						
Cargamel, Jules. (See Stiegler, Xavier, assignor.)						
Cargill, Darius P., et al. (See Brace, William H., assignor.)						
Carley, John W., Cotton Gin, Tex. Earth borer and excavator	234,532	Nov. 16	869	282	18	1148
Carlin, James B., Carthage, Mo. Grain-mill	232,239	Sept. 14	437	120	18	604
Carlisle, Henry, Jr., deceased, F. Campbell, administrator, and assignor, by mesne assignments, to J. A. Riley and C. S. Freer, New York, N. Y. Bracelet. (Reissue.)	9,482	Nov. 30	1549	416	18	1273
Carman, Charles B., Brooklyn, N. Y. Necktie or scarf holder	229,519	July 6	11	3	18	10
Carman, Isaac H., New Ross, Ind. Fence	224,387	Feb. 10	479	127	17	302
Carnell, George, Philadelphia, Pa. Mold for brick-machines	225,107	Mar. 2	148	43	17	482
Carnes, William J., Sr., Gonzales, Tex., and C. W. Penfield, New Britain, Conn. Stake-pin	227,675	May 18	679	194	17	1110
Carney, Francis H., Cambridgeport, Mass. Pantaloon	228,246	June 1	103	31	17	1243
Carnrick, John, et al. (See Murdoch and Haynes, assignors.) (Reissue.)						
Carnrick, John, Cresskill, N. J. Malt extract. (Reissue.)	9,075	Feb. 17	905		17	384
Caro, Heinrich, assignor to Badische Anilin and Soda Fabrik, Mannheim, Baden, Germany, Dye-stuff or coloring-matter. (Reissue.)	9,144	Apr. 6	264		17	794
Caro, Heinrich, Mannheim, assignor to Badische Anilin and Soda Fabrik, Baden, Germany, Coloring-matter obtained from alpha-naphthol	225,108	Mar. 2	149		17	482
Carothers, Rogers & Co. (See Rogers, David J., assignor.)						
Carpenter, Azariah, assignor to American Meter Company, New York, N. Y. Gas-meter	228,513	June 8	423	115	17	1303
Carpenter, Charles B., Attleborough, Mass. Separable button	227,485	May 11	462	133	17	1065
Carpenter, Francis W. (See Field, William D., assignor.)						
Carpenter, Francis W., Rye, and J. Herring, Brooklyn, N. Y.; said Herring assignor to said Carpenter. Toy railway-train	227,216	May 4	153	45	17	1002
Carpenter, Francis W., Rye, N. Y. Toy railway-train	227,956	May 25	1029	294	17	1177
Carpenter, Francis W., Harrison, N. Y. Toy horse and wagon	234,534	Nov. 16	872	232	18	1148
Carpenter, James, New Hope, N. Y. Butter-package	223,478	Jan. 13	335	89	17	72
Carpenter, James, New Hope, N. Y. Fence-post driver	224,578	Feb. 17	706	201	17	350
Carpenter, James, New Hope, N. Y. Wagon-brake	227,215	May 4	152	44	17	1002
Carpenter, James O., Brooklyn, N. Y. Monetary check	226,974	Apr. 27	991	275	17	943
Carpenter, Jotham P., Attleborough, Mass. Separable button	224,143	Feb. 3	193	56	17	235
Carpenter, Jotham P., Attleborough, Mass. Detachable button	224,144	Feb. 3	194	56	17	236
Carpenter, Philip M. (See Hodges, John H., assignor.)						
Carpenter, S. C., et al. (See Morgan, Hubert W., assignor.)						
Carpenter, Smith H., Virgil, N. Y. Carriage-axle clip	235,069	Dec. 7	11	3	18	1283
Carpenter, Walter S., Wilkesbarre, Pa. Combined portable wash-stand and bath-tub	230,403	July 27	1089	306	18	200
Carpenter, William B., Newark, N. J., assignor to himself and Celluloid Novelty Company, New York, N. Y. Necking celluloid tubes	235,932	Dec. 28	1093	302	18	1486
Carpenter, William B., Newark, N. J., assignor to himself and Celluloid Novelty Company, New York, N. Y. Coloring the eyebrows, &c., of celluloid dolls	235,933	Dec. 28	1094	302	18	1486
Carr, George W., et al. (See Sholes, Frederick, assignor.)						
Carr, John I., Chicago, Ill. Writing-tablet	233,069	Oct. 12	338	94	18	800
Carr, Martin W., Somerville, Mass. Brush-holding cap for mucilage-bottles	228,603	June 8	538	143	17	1320
Carr, William, Yellow Springs, Ohio. Wagon running-gear	225,687	Mar. 23	841	245	17	632
Carrick, Thomas J., Baltimore, Md., assignor, by mesne assignment, to S. S. White, Philadelphia, Pa. Head-rest	223,276	Jan. 6	82	20	17	16
Carrick, Thomas J., Baltimore, Md., assignor to J. W. Selby, New York, N. Y. Clamp	229,670	July 6	181	50	18	35
Carrington, Campbell, Washington, D. C. Cigar-holder	232,453	Sept. 21	709	195	18	655
Carroll, Charles, New Orleans, La. Toilet-case	234,388	Nov. 16	705	190	18	1120
Carroll, Patrick. (See McMurtry and Carroll.)						
Carroll, Patrick E., et al. (See Peters, John E., assignor.)						
Carroll, Philip F., Dubuque, Iowa. Egg-beater	235,620	Dec. 21	700	199	18	1412
Carroll, William J., Natchez, Miss. Car-truck	231,898	Sept. 7	24	5	18	529
Carroll, William T., Worcester, assignor to G. Draper & Sons, Hopedale, Mass. Spindle-adjusting mechanism for spinning-machines	223,992	Feb. 3	21	8	17	206
Carrothers, James, assignor of one-half interest to D. S. Daneer, Shanandoah, Ohio. Drag-saw	229,091	June 22	1142	312	17	1426
Carrow, John S., et al. (See Bishop, Clement B., assignor.)						
Carrow, William D., et al. (See Bishop, Clement B., assignor.)						
Carson, Benjamin F., Millbrook, Tenn. Wheat-drum	225,742	Mar. 23	904	263	17	642
Carson, Howard A., Boston, Mass. Apparatus for moving earth	228,980	June 22	1021	278	17	1408
Carson, James B., Griffin, Ga. Cotton-chopper	224,645	Feb. 17	784	222	17	362
Carstens, C. H. (See Trump, George, assignor.)						
Carter, Charles B., Lawrence, Mass. Treating wood, &c.	235,070	Dec. 7	12		18	1283
Carter, Charles D., Allegan, Mich. Cultivator	224,074	Feb. 3	123	35	17	223
Carter, Charles D., Grand Rapids, Mich. Spring harrow-tooth	231,268	Aug. 17	787	220	18	388
Carter, Charles H., Brooklyn, N. Y. Electric burglar-alarm	225,271	Mar. 9	333	98	17	527
Carter, Charles H., San Francisco, Cal. Machine for making metallic laths	226,901	Apr. 27	903	251	17	928
Carter, Charles H., Brooklyn, N. Y. Electric alarm and indicator	229,867	July 13	424	117	18	79
Carter, Charles H., Brooklyn, N. Y. Ruffling and puffing attachment for sewing-machines	234,242	Nov. 9	511	141	18	1080
Carter, Charles H., Brooklyn, N. Y. Electric alarm for letter-boxes	234,244	Nov. 9	513	141	18	1081
Carter, Edward B., Huntsville, Ala. Corpse-lifter	230,467	July 27	1167	330	18	213
Carter, Francis M., Marlborough, Mass. Skiving-machine	225,340	Mar. 9	432	126	17	542
Carter, Frederick W., Camden, N. J. Hydrocarbon-burner	235,621	Dec. 21	701	199	18	1413
Carter, Harvey K., Camden, N. J., assignor of one-half interest to J. B. Wood, Philadelphia, Pa., and J. F. Wood, Camden, N. J. Wooden vessel	234,752	Nov. 23	1161	313	18	1302
Carter, Hiram A., Pawtucket, R. I. Separable button	227,730	May 18	750	211	17	1121
Carter, Hiram H., Headsville, Tex. Combined corn and cotton planter	233,979	Nov. 2	186	47, 48	18	1017
Carter, John A., Rosebud, Ill. Mechanical musical instrument	226,714	Apr. 20	675	188	17	880
Carter, John G., Boston, Mass. Paint-can	235,207	Dec. 7	182	49	18	1311
Carter, John J. (See Dingman and Argue, assignors.)						
Carter, Robert H., Pittsburg, Pa. Slide-valve for steam-engines	226,715	Apr. 20	676	188	17	881
Carter, Samuel T., Tama City, Iowa. Churn-motor	231,534	Aug. 24	1077	302	18	441
Carter, Thomas W. (See Murtagh, John, assignor.)						
Cartwright, Robert, assignor to Rochester Adjustable Lamp Company, Rochester, N. Y. Lamp	227,731	May 18	750	211	17	1121

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Cartwright, Robert, Rochester, N. Y. Combined stand and bracket lamp.	234,245	Nov. 9	514	141	18	1081
Carvalho, David N., assignor to himself and E. Marx, New York, N. Y. Producing photographic images.	225,458	Mar. 16	570	-----	17	575
Carvalho, David N., assignor to himself and E. Marx, New York, N. Y. Producing photographic images. (Reissue).	9,384	Sept. 21	853	-----	18	681
Carvalho, David N., assignor of one-half to E. Marx, New York, N. Y. Producing photographic images.	234,171	Nov. 9	424	-----	18	1065
Carver, Henry I., Ludlow, Mass. Combined butter worker and mold. (Reissue).	9,092	Feb. 24	1176	337	17	442
Carver, James C., <i>et al.</i> (See Wilson, Gandy, and Shingert, assignors.)						
Cary, Alanson, assignor to American Fencing Company, New York, N. Y. Machine for manufacturing metallic barbed ribbon for fence-wire.	226,034	Mar. 30	1267	357	17	713
Cary, Lewis C., Deering, Me. Fare-box.	226,158	Apr. 6	11	3	17	748
Cary, Nathaniel S., Providence, R. I. Tire-upsetting machine.	225,916	Mar. 30	1114	318	17	690
Cary, Sidney C., Baltimore, Md. Telephone-support.	224,073	Feb. 3	122	35	17	923
Casady, William, Milton, Iowa. Wheel-making machine.	234,753	Nov. 23	1162	313	18	1202
Case, Adelbert B., Springfield, Mass. Cuff fastener and supporter.	234,533	Nov. 16	871	232	18	1148
Case, Alonzo M. (See Case, Stephen A. and A. M.)						
Case & Co., J. I. (See Jilson, Alonzo, assignor.)						
Case, Constantius G., Battle Creek, Mich. Thrashing-machine.	226,973	Apr. 27	989	275	17	942
Case, Eliza A., Williamstown, N. Y. Frnit-jar lifter.	228,865	June 15	881	240	17	1379
Case, Henry, Brooklyn, N. Y. Process and apparatus for sinking piles.	223,479	Jan. 13	336	90	17	72
Case, Henry, Brooklyn, N. Y. Composite pile.	224,646	Feb. 17	784	222	17	362
Case, Henry, Brooklyn, N. Y. Breakwater.	227,483	May 11	460	132	17	1064
Case, Henry, Brooklyn, N. Y. Apparatus for sinking and removing piles.	227,484	May 11	461	132 133	17	1065
Case, Jerome I., assignor to J. I. Case Plow Company, Racine, Wis. Plow.	229,954	July 13	518	143	18	94
Case, Joel T., Bristol, Conn. Grinding-mill.	232,595	Sept. 28	869	240 241	18	690
Case, John K. (See Sawyer, Charles D., assignor.)						
Case, John M., and C. Stein, Columbus, Ohio; said Stein assignor to said Case. Middlings-purifier.	225,564	Mar. 16	692	203	17	596
Case Plow Company, J. I. (See Case, Jerome I., assignor.)						
Case, Schuyler S., Indianapolis, Ind. Ironing-table.	224,995	Mar. 2	14	5	17	459
Case, Stephen A. and A. M., Amsterdam, N. Y. Machine for drying tubular fabrics.	231,269	Aug. 17	788	220 221	18	388
Case, Stephen A. and A. M., Amsterdam, N. Y. Machine for rolling tubular fabrics.	231,270	Aug. 17	789	221	18	388
Casey, Jeremiah, Allentown, Pa. Box-fastener.	224,647	Feb. 17	785	222	17	363
Casey, John, Jersey City, N. J. Check-receiver.	235,740	Dec. 21	838	234	18	1436
Cash, David V., assignor of one-half to J. M. Range, Johnson City, Tenn. Straw-cutter.	234,905	Nov. 30	1361	365	18	1241
Caspersson, Carl A., Westanfors, Sweden. Casting apparatus.	229,953	July 13	517	143	18	94
Cassidy, John W., Petaluma, Cal. Drying fruit.	233,473	Oct. 19	851	234	18	893
Cassidy, Michael. (See Ransom and Cassidy.)						
Cassidy, Terance F., Bangor, Me. Cant-dog.	235,992	Dec. 28	1162	323	18	1498
Castanien, Franklin P., Upper Sandusky, Ohio. Corn-planter.	224,872	Feb. 24	1064	304	17	423
Casterlin, Charles S., Mason, Mich. Churn-power.	233,141	Oct. 12	430	118	18	515
Castle, Alexander W., and C. U. Akin, Enreka, Nev. Elevator.	234,956	Nov. 30	1422	382 383	18	1251
Castle, Alfred B., Union City, Mich. Water-tank attachment.	225,565	Mar. 16	694	203	17	597
Castle, Christopher C. (See Murray, John A., assignor.)						
Castle, Samuel D. (See House and Castle.)						
Castle, William. (See Robbins, Thomas J., assignor.)						
Caswell, Elijah S., Taunton, Mass. Shoe-nail.	229,376	June 29	1471	405	17	1479
Cately, Shepard W., Cortland, N. Y. Carriage-spring.	233,727	Oct. 26	1162	323	18	955
Cathcart, Frank H., Washington, D. C. Rotary engine.	224,146	Feb. 3	196	56, 57	17	236
Catlin, Abel D., assignor of one-third interest to Smalley Brothers & Co., Bay City, Mich. Damper-regulator.	231,758	Aug. 31	1347	379	18	490
Catlin, Austin H., Peekskill, N. Y. Railway-train signal.	228,034	May 25	1112	316	17	1189
Catlin, Charles A. (See Wilson and Catlin.)						
Catlin, Charles A., Providence, R. I. Acid phosphate for baking-powders.	229,518	July 6	9	-----	18	10
Catlin, Emma F. (See Catlin, Seth C., assignor.)						
Catlin, Frederick, Brooklyn, N. Y. Telegraph-repeater.	231,477	Aug. 24	1013	285	18	432
Catlin, Robert M., Tascara, Nev. Apparatus for compressing air.	231,007	Aug. 10	478	136	18	331
Catlin, Seth C., assignor to E. F. Catlin, Brooklyn, N. Y. Student-lamp.	223,216	Jan. 6	8	2	17	4
Cattelle, W. Richard. (See Shaw, Charles H., assignor.)						
Caulfield, Henry E., Vienna, Ontario, Canada. Sewing-machine case.	233,327	Oct. 19	675	186	18	865
Cavett, James R., Collinsburg, La. Bale-tie.	226,388	Apr. 13	273	81	17	806
Caviness, Richard E., and G. McCormick, Beckwith, Iowa. Corn-planter.	234,243	Nov. 9	512	141	18	1081
Cawker, Samuel M., Denver, Colo. Fluid-measuring tank.	228,866	June 15	882	240	17	1379
Cayce, John M., Thompson's Station, Tenn. Recording apparatus for spirit-meters.	224,147	Feb. 3	198	57	17	236
Caywood, Charles C., Clarksburg, W. Va. Chimney cap and cowl.	224,873	Feb. 24	1066	305	17	424
Cebrian, John C. (See Molera and Cebrian.)						
Ceis, John M., Abilene, Kans. Weather-strip.	228,604	June 8	539	144	17	1320
Celluloid Fancy Goods Company. (See Halsey, William H., assignor.)						
Celluloid Manufacturing Company. (See Booth, William, assignor.)						
Celluloid Manufacturing Company. (See Hyatt, John W., assignor.)						
Celluloid Manufacturing Company. (See Lefferts, Marshall C., assignor.)						
Celluloid Manufacturing Company. (See Otto, Gustav, assignor.)						
Celluloid Manufacturing Company. (See Whiting, George F., assignor.)						
Celluloid Novelty Company. (See Carpenter, William B., assignor.)						
Celluloid Novelty Company. (See Sanborn, Albert A., assignor.)						
Center, Joshua C., assignor of one-half interest to J. B. Brown and L. A. Bigger, Hutchinson, Kans. Railway-frog.	225,049	Mar. 2	90	24	17	471
Chabot, Joseph A., Somerville, and F. H. Charter, Boston, Mass. Safe.	235,208	Dec. 7	183	50	18	1311
Chace, Albert F., Boston, Mass. Gas governor and regulator for carbureters.	230,744	Aug. 3	170	50	18	274
Chace, William H., Fall River, Mass. Machine for stretching leather belting.	232,454	Sept. 21	710	196	18	655
Chadborn, Adeline E., administratrix. (See Chadborn, Benjamin H.)						
Chadborn, Benjamin H., (A. E. Chadborn, administratrix,) New York, N. Y. Apparatus for manufacturing soap.	234,514	Feb. 17	628	181	17	337
Chaddock, Oliver, <i>et al.</i> (See Lupton, Addison, assignor.)						
Chadwick, James. (See Chadwick and Kynaston.)						
Chadwick, Thomas. (See Chadwick and Kynaston.)						
Chadwick, William T., and J. Manchester, and J. W. Kynaston, Liverpool, England. Purification of alumina, bauxite, &c.	228,667	June 15	853	-----	17	1379

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Chadwick, William, T., and J., Manchester, and J. W. Kynaston, Liverpool, England. Making and purifying sulphate of alumina or alum.....	230,106	July 20	707	-----	18	133
Chaffee, Frank W., Springfield, Mass. Car-brake mechanism.....	231,271	Aug. 17	790	221	18	388
Chaffee, Julius T., and G. Priest, Bloomfield, Iowa. Method of and apparatus for heating, conducting, and utilizing air.....	230,107	July 20	708	198	18	133
Chaim, Adolph, assignor to himself and T. W. Heinemann, Chicago, Ill. Truss.....	228,981	June 22	1023	278	17	1408
Chalk, Timothy C., Valley Falls, R. I. Oiler.....	234,959	Nov. 30	1426	383	18	1252
Challen, Stephen W. (See Taylor and Challen.)						
Challinor, David, <i>et al.</i> (See Adams, Joseph, assignor.)						
Chamberlain, Blanchard, assignor of one-half interest to J. B. Niven, Bellefontaine, Ohio. Grain-binder.....	226,035	Mar. 30	1268	{ 357 358 }	{ 17 18 }	713
Chamberlain, Blanchard, Bellefontaine, Ohio. Bung for barrels.....	231,997	Sept. 7	149	39	18	548
Chamberlain, Blanchard, assignor of one-half to J. B. Niven, Bellefontaine, Ohio. Grain-binder.....	234,172	Nov. 9	425	{ 115 116 }	{ 18 18 }	1065
Chamberlain, Dexter H., West Roxbury, assignor to W. H. Ireland, Boston, Mass. Safety attachment for elevators.....	232,455	Sept. 21	711	{ 196 197 }	{ 18 18 }	655
Chamberlain, Edmund D., Westfield, assignor of one-half interest to S. J. Marden, Newark, N. J. Elastic-faced printing-type.....	229,869	July 13	427	118	18	80
Chamberlain, S. W. (See Gillespie, Roland, assignor.)						
Chamberlain, William T., Norwich, Conn., assignor of two-thirds interest to J. B. and C. Z. De Young, Philadelphia, Pa. Air-gun.....	229,868	July 13	425	117	18	80
Chamberlin, Columbus, Louisville, Ky. Rotary engine.....	234,957	Nov. 30	1424	383	18	1252
Chamberlin, Corydon, Santa Rosa, Cal. Lawn-sprinkler.....	223,277	Jan. 6	83	21	17	17
Chamberlin, David L. (See Van Kannel, Theophilus, assignor.)						
Chamberlin, George W., assignor to E. W. Vail, Worcester, Mass. Folding chair and settee.....	223,883	Jan. 27	831	221	17	172
Chamberlin, John H., Ypsilanti, Mich. Coffee-roaster.....	223,993	Feb. 3	22	8	17	206
Chambers, Cyrus, Jr., and W. Mendham, Philadelphia, Pa.; said Mendham assignor to } said Chambers. Paper-folding machine.....	225,506	Mar. 16	623	{ 182 183 }	{ 17 17 }	524
Chambers, James, Waco, Tex. Game.....	235,209	Dec. 7	184	50	18	1311
Chambers, James P., Bloomington, Ind. Vehicle-hub.....	226,277	Apr. 6	145	41	17	772
Chambers, James W., Baltimore, Md. Music-chart.....	229,379	June 29	1474	406	17	1479
Chambers, John H., New York, N. Y. Manufacture of an improved fertilizer from stable-manure.....	229,955	July 13	519	144	18	94
Chambers, Josephus C., assignor to Chambers National Lightning Protection Company, Cincinnati, Ohio. Insulated cresting.....	224,504	Feb. 10	605	175	17	322
Chambers, Josephus C., assignor to Chambers National Lightning Protection Company, Cincinnati, Ohio. Protecting oil-tanks from lightning or fire.....	234,173	Nov. 9	427	116	18	1065
Chambers National Lightning Protection Company. (See Chambers, Josephus C., assignor.)						
Chambers, Vincent. (See Donnel, John W., assignor.)						
Chameroy, Edme A., Paris, France. Recording scale-beam.....	234,656	Nov. 23	1049	282	18	1184
Chamness, Eli M., and J. T. Vaughn, Alexandria, Ind. Washing-machine.....	224,876	Feb. 24	1069	306	17	424
Champagne, Fred. (See Foster, Samuel, assignor.)						
Champagne, Frederick, assignor of two-thirds interest to J. S. Winslow and G. W. Watkins, Moriah, N. Y. Medical compound.....	231,759	Aug. 31	1348	-----	18	490
Chancel, Veillon, Alioth & Co. (See Alioth, Rodolphe, assignor.)						
Chandlee, Isaac G., Philadelphia, Pa. Shuttle-motion for looms.....	225,566	Mar. 16	695	204	17	597
Chandlee, Isaac G., Woodberry, assignor to W. E. Hooper & Sons, Baltimore, Md. Lamp-wick.....	231,400	Aug. 24	931	263	18	418
Chandler, Clarence A., East Bridgewater, assignor of five-sixths interest to J. D. Gould, Boston, Mass. Fluid-meter.....	226,716	Apr. 20	677	188	17	881
Chandler, Clarence A., East Bridgewater, Mass., assignor to Eastern Paper Bag Company, Hartford, Conn. Paper-bag machine.....	228,312	June 1	180	50, 51	17	1256
Chandler, Isaac A., Cambridge, Mass. Street-railway switch.....	224,874	Feb. 24	1067	305	17	424
Chandler, Isaac A., Cambridge, Mass. Street-railway switch.....	224,875	Feb. 24	1068	305	17	424
Chandler, Jesse, Warsaw, Ill. Sash-supporter.....	230,233	July 20	855	242	18	156
Chandler, Lucius S. (See Silver, Samuel N., assignor.)						
Chandley, John B., and W. Wilson, Mount Kisco, N. Y. Telescopic handle for canes.....	223,706	Jan. 20	606	162	17	125
Chanut, Jean M., Boston, Mass. Glove.....	229,377	June 29	1471	405	17	1479
Chapin, Alfred B., Buffalo, N. Y. Device for attaching cars to moving trains.....	225,272	Mar. 9	334	98, 99	17	527
Chapin, Charles O. and H. A., Springfield, Mass. Manufacture of paper-pulp from straw, &c.....	227,676	May 18	680	-----	17	1110
Chapin, Henry A. (See Chapin, Charles O. and H. A.)						
Chapin, Lucius D., Chicago, Ill. Metallurgic furnace.....	223,480	Jan. 13	336	90	17	73
Chapin, Lucius D., Chicago, Ill. Manufacture of iron.....	223,481	Jan. 13	338	90, 91	17	73
Chaplin, Henry C., Charlottesville, Va. Dumping-wagon.....	230,527	July 27	1231	347	18	223
Chaplin, Orril R., Boston, Mass., assignor to D. A. Newton and S. H. Bellows. Combined square and bevel. (Reissue).....	9,183	May 4	286	84	17	1025
Chaplin, Orril R., Boston, Mass., assignor, by mesne assignment, to Flexible Shoe Fastening Machine Company. Shoe-nail wire.....	228,605	June 8	540	144	17	1320
Chaplin, Orril R., Boston, Mass., assignor, by mesne assignment, to Flexible Shoe Fastening Machine Company. Machine for driving sole-fastenings.....	231,149	Aug. 17	643	182	18	365
Chapman, Charles H., Joplin, Wis. Limekiln.....	230,742	Aug. 3	168	49	18	274
Chapman, Charles H., Shirley, assignor of one-half interest to L. Wallace, Ayer, Mass. Spindle and method of lubricating the same.....	233,474	Oct. 19	852	235	18	893
Chapman, Daniel J. (See De Frain, John, assignor.)						
Chapman, Frank H. (See Parker and Chapman.)						
Chapman, Genry A., Strawberry Point, Iowa. Pipe cutter and wrench.....	232,937	Oct. 5	169	45	18	766
Chapman, Harriet M. (See Chapman and Miles, assignors.)						
Chapman, John A., White Water, Wis. Shifting seat for vehicles.....	227,612	May 18	610	175	17	1100
Chapman, Luke, assignor of one-half interest to Collins Company, Collinsville, Conn. Plow.....	223,579	Jan. 13	455	123	17	92
Chapman, Luke, assignor of one-half interest to Collins Company, Collinsville, Conn. Plow.....	223,580	Jan. 13	455	123	17	92
Chapman, Luke, assignor of one-half interest to Collins Company, Collinsville, Conn. Rolling colter.....	225,743	Mar. 23	906	263	17	642
Chapman, Luke, assignor of one-half interest to Collins Company, Collinsville, Conn. Wheel-plow.....	225,744	Mar. 23	906	264	17	642
Chapman, Luke, assignor to Collins Company, Collinsville, Conn. Die for forging wrench-heads.....	225,745	Mar. 23	908	264	17	643
Chapman, Nathan, Milford, Mass. Temple-roller-drilling machine.....	226,491	Apr. 13	401	113	17	825
Chapman, Orlow W. (See Sanford, Addison, V., assignor.)						
Chapman, Robert T., Louisville, Ky. Finger-measure.....	235,507	Dec. 14	557	159	18	1382
Chapman, Samuel J., assignor to D. S. Silcox, T. M. Mordecai, and H. Leiding, Charleston, S. C. Reversing-gear and brake mechanism for hoisting-drums.....	230,613	Aug. 3	19	5	18	250
Chapman, William A. (See Wheeler and Chapman.)						
Chapman, William A., Bold Springs, Tex. Agricultural implement.....	225,688	Mar. 23	843	245	17	632

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Chapman, William C., and W. B. Miles; said Chapman assignor to H. M. Chapman, Toledo, Ohio. Water filter and cooler.....	235,934	Dec. 28	1094	303	18	1486
Chapman, William H., Middletown, Conn. Gag-runner for harness.....	234,246	Nov. 9	515	142	18	1081
Chappell, George, Brooklyn, N. Y. Lamp-globe.....	228,247	June 1	103	31	17	1243
Chappell, Charles A. (See Mell, James A., assignor.)						
Chappell, Thomas J., Gilroy, Cal. Elevator for harvester-headers.....	228,035	May 25	1113	316	17	1189
Chappell, Thomas J., and J. T. Ricketts, Gilroy, Cal. Ditching and embanking machine..	235,622	Dec. 21	702	199	18	1413
Charles, Andrew, Chicago, Ill. Elevator-bucket.....	229,235	June 29	1294	356	17	1456
Charles, Andrew S., Hornellsville, N. Y. Lamp-wick trimmer.....	224,148	Feb. 3	200	58	17	236
Charles, John, assignor of one-half interest to L. Charles, Clear Spring, Md. Wagon-jack..	229,380	June 29	1475	406	17	1479
Charles, Lewis. (See Charles, John, assignor.)						
Charles, Richard H., et al. (See McGibeny, Sylvester H., assignor.)						
Charter, Frank H. (See Chabot and Charter.)						
Chase, Andrew J., Boston, Mass. Refrigerator.....	229,956	July 13	520	144	18	94
Chase, Benjamin F., Chicago, Ill. Trolling reel and cabinet.....	230,743	Aug. 3	168	50	18	274
Chase, Charles C., et al. (See Fake, Henry, assignor.)						
Chase, Charles W. (See Cook, Chase, and Beard.)						
Chase, James. (See Dexter and Chase.)						
Chase, Jefferson, Orange, Mass. Manufacture of wood pulp for paper.....	233,070	Oct. 12	340	-----	18	801
Chase, Jefferson, Orange, Mass. Wood-pulp engine.....	233,071	Oct. 12	340	94	18	801
Chase, J. Herbert, Cambridge, Mass. Separating-sieve.....	227,486	May 11	463	133	17	1065
Chase, J. Herbert, Cambridge, Mass. Sifter for ashes.....	227,487	May 11	465	133	17	1065
Chase, Merritt & Blanchard, et al. (See Tregurtha, James, assignor.)						
Chase, Mervin R., Warren, R. I. Polishing-machine.....	232,682	Sept. 28	969	266	18	707
Chase, Richard F. M., assignor of one-half interest to H. F. Herkner, New York, N. Y. Knit fabric.....	226,595	Apr. 20	543	152	17	859
Chase, Richard F. M., assignor of one-half interest to H. F. Herkner, New York, N. Y. Knit fabric.....	226,596	Apr. 20	545	152	17	859
Chase, Stephen H., San José, Cal. Fence.....	235,210	Dec. 7	185	50	18	1312
Chase, William D., assignor of one-half interest to G. W. Almy, Brooklyn, and H. S. Almy, New York, N. Y. Striking-clock.....	224,768	Feb. 24	942	269	17	404
Chase, William F. (See Covell and Chase.)						
Chase, Zaccheus. (See Freeborn and Chase.)						
Chaskel, James, New York, N. Y., assignor to New York Rubber Company. Whistling-toy. (Reissue).....	9,255	June 15	1000	271	17	1396
Chatterton, George H., Newark, assignor to J. C. Chatterton, Rutherford Park, and C. C. Redway, Ocean Grove, N. J. Beach-seat.....	229,378	June 29	1473	406	17	1479
Chatterton, John C., et al. (See Chatterton, George H., assignor.)						
Chaumont, Jules, Woodhaven, N. Y., assignor to Lalanc & Grosjean Manufacturing Company, of New York. Grater.....	226,278	Apr. 6	146	42	17	772
Charavette, Pierre M. J., Paris, France, assignor to A. F. W. Partz, Philadelphia, Pa. } Machine for expressing the juice from grapes, &c.....	224,648	Feb. 17	786	{ 222 } { 223 }	{ 17 }	{ 363 }
Cheever, Charles A., trustee. (See Ball, Charles E., assignor.)						
Cheever, Charles A. (See Holcombe and Cheever.)						
Cheever, Charles A. (See Rose, Allen W., assignor.)						
Cheever, Charles A., New York, N. Y. Electric speaking-telephone.....	235,508	Dec. 14	558	159	18	1382
Cheever, John H., New York, N. Y. Vulcanizing rubber hose. (Reissue).....	9,210	May 25	1251	-----	17	1212
Cheever, John H., New York, N. Y. Reclaiming rubber from old and waste vulcanized rubber and utilizing the same in manufacturing rubber goods.....	233,600	Oct. 26	1018	-----	18	931
Cheever, Joseph H., Somerville, Mass., assignor to American Bell Telephone Company. Galvanic battery.....	233,601	Oct. 26	1019	283	18	932
Chellaw, Joseph, Glasford, Ill. Apparatus for cooling air.....	233,072	Oct. 12	341	94	18	801
Chellis, Edgar W. (See Drawbaugh, Daniel, assignor.)						
Chemische Fabrik auf Actien, (Vorm E. Schering.) (See Holtz, Julius, assignor.)						
Chenery, Walter H. (See Walthour, John F., assignor.)						
Chenette, Joseph E., Hillsborough, Oreg., assignor to W. H. Wiester, San Francisco, Cal. Plating-machine.....	223,800	Jan. 27	724	196	17	155
Cheney, Aaron D., Three Oaks, Mich. Hatcheling device.....	231,998	Sept. 7	150	39	18	548
Cheney, Albert O., Poughkeepsie, N. Y. Butter-trier.....	233,202	Oct. 12	499	137	18	828
Cheney, John M., Sonoma, Cal. Farm-gate.....	233,658	Oct. 26	1087	302	18	943
Cheney, Samuel, Rouseville, Pa. Process and apparatus for distilling petroleum.....	230,239	July 20	855	242	18	156
Chenoweth, George E., Baltimore, Md. Gage-cock for steam-boilers.....	231,008	Aug. 10	479	136	18	331
Cherry, Samuel D., Seneca City, S. C. Fruit-drier.....	231,009	Aug. 10	480	136	18	331
Chesebrough, Robert A. (See Crikelair, Gustave J., assignor.)						
Chesley, James A. (See Brown, Jefferson, Jr., assignor.)						
Chesnut, Andrew A., et al. (See Barkheimer, Joseph, assignor.)						
Chester, Richard, Chicago, Ill. Fog-horn for vessels.....	235,509	Dec. 14	559	159	18	1383
Chester Tube and Iron Company. (See Stott, Benjamin, assignor.)						
Chesterman, Edwin, Philadelphia, Pa. Combined runner and roller skate.....	226,835	Apr. 27	821	229	17	915
Chesterman, Edwin, Philadelphia, Pa. Fare-register.....	226,975	Apr. 27	992	{ 275 } { 276 }	{ 17 }	{ 943 }
Chesterman, Edwin, Philadelphia, Pa. Ventilator for hats.....	229,870	July 13	427	118	18	80
Chestnut, John H. W. (See Barrie, Robert C., Jr., assignor.)						
Cheston, Jonathan L., South Easton, Pa. Paddle for boat-wheels.....	225,567	Mar. 16	696	204	17	597
Cheswright, Charles, Parkhurst Road, county of Middlesex, England. Making capsules...	233,980	Nov. 2	187	48	18	1017
Chew, John N., Logan, Iowa. Cattle-pen.....	232,683	Sept. 28	970	267	18	707
Chicago Stamping Company. (See Flint, William W., assignor.)						
Chicago Stamping Company. (See Wright, Christopher, assignor.)						
Chichester, James D., Charleston, Mich. Combined cultivator and seeder.....	234,390	Nov. 16	706	190	18	1120
Chichester, Lewis S., Jersey City, N. J. Preparing grain, &c., for grinding.....	229,803	July 13	349	-----	18	68
Chichester, Lewis S., Jersey City, N. J. Mode of and apparatus for reducing cereals.....	230,468	July 27	1168	330	18	213
Chickering & Sons. (See Ketten, Henry, assignor.)						
Chidester, Foster B. (See Davies and Chidester.)						
Child, Hubert, Wichita, Kans. Transparent sign.....	225,568	Mar. 16	696	204	17	597
Child, John M., Philadelphia, Pa. Composition for aiding the ignition of coal, &c.....	224,649	Feb. 17	788	-----	17	363
Children, Edwin, East Dubuque, Ill. Applying barbs to fence-wires.....	231,272	Aug. 17	791	221	18	388
Childs, Robert, Deerfield, Mass. Packing for pistons.....	224,815	Feb. 24	1001	283	17	413
Childs, William A., Englewood, N. J. Telephonic exchange system and device.....	225,797	Mar. 23	974	{ 280 } { 281 }	{ 17 }	{ 653 }
Chiles, George P., Camden Town, England. Covering for floors, walls, &c.....	226,440	Apr. 13	343	-----	17	816
Chilson, Frederick L., Hastings, Mich. Three-horse equalizer.....	231,760	Aug. 31	1349	379	18	490
Chinnoek, Charles E., Brooklyn, N. Y., assignor of one-half interest to J. D. Harrison, Newark, N. J. Electric conductor.....	224,579	Feb. 17	706	201	17	350



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Chinneck, Charles E., Brooklyn, N. Y., assignor of one-half interest to J. D. Harrison, Newark, N. J. Induced-current guard for electrical conductors.....	224,580	Feb. 17	708	202	17	350
Chinneck, Charles E., Brooklyn, N. Y., assignor to Chinneck Electric Company. Telegraphic switch-board.....	229,672	July 6	182	51	18	35
Chinneck Electric Company. (See Chinneck, Charles E., assignor.)						
Chinneck Electric Company. (See Finn, John L., assignor.) (Reissue.)						
Chinneck Electric Company. (See Pearson, Henry G., assignor.)						
Chinneck, George H. (See Kato and Chinneck.)						
Chinneck, George H., Brooklyn, N. Y., and W. W. Bennett, Jersey City, N. J. Mechanical musical instrument.....	236,279	Apr. 6	146	42	17	772
Chipley, Lucien M., St. Louis, Mo. Ribbon-holder.....	224,581	Feb. 17	709	202	17	350
Chipley, Marshal D., New York, N. Y. Corset-clasp.....	231,700	Aug. 31	1277	359	18	479
Chipman, Thomas L., Mystic, Conn., and S. A. Reynolds, Hope Valley, R. I. Axle-nut wrench.....	227,093	May 4	3	1	17	979
Chisholm, Hugh J. (See Stevens and Chisholm.)						
Chisholm, William, Cleveland, Ohio. Shovel, spade, or fork.....	226,493	Apr. 13	403	114	17	826
Chisholm, William, Cleveland, Ohio. Shovel-handle.....	227,831	May 25	936	268	17	1162
Chisholm, William, Cleveland, Ohio. Shovel.....	229,520	July 6	12	3	18	10
Christ, Philip. (See Fitzhugh, Benjamin G., assignor.)						
Christey, Arthur, Buffalo, N. Y. Pen-rack.....	223,435	Jan. 13	282	75	17	64
Christiansen, Lars P. (See Derickson, William J., assignor.)						
Christie, Alexander, Malden, Mass. Game apparatus.....	235,993	Dec. 23	1163	323	18	1498
Christie, Thomas S., et al. (See Fontaine, Eugene, assignor.)						
Christman, Augustus G., Sheridan, Pa. Plow.....	223,666	Jan. 20	565	152	17	119
Christmas, Charles T., Riverton, Miss. Hand-power attachment for sewing-machines.....	226,492	Apr. 13	402	114	17	826
Christmas, Charles T., Riverton, Miss. Baling-press.....	228,036	May 25	1114	317	17	1189
Christmas, Charles T., Riverton, Miss. Bale-band tightener.....	231,273	Aug. 17	793	222	18	389
Christofferson, Hans. (See Sullivan and Christofferson.)						
Christophel, John, St. Louis, Mo. Bitters.....	229,804	July 13	351	-----	18	68
Christy, Fritz, assignor to C. H. Hanson, Chicago, Ill. Branding-stamp.....	224,877	Feb. 24	1070	306	17	424
Christy, George H., trustee. (See Greer, Howard, assignor.)						
Christy, Thomas J., St. Louis, Mo. Whiffletree-hook.....	223,432	Jan. 13	341	91	17	73
Chubb, Archibald L., Grand Rapids, Mich. Plow.....	225,341	Mar. 9	434	126	17	542
Chubb, Archibald L., Grand Rapids, Mich. Plow.....	225,342	Mar. 9	435	126	17	542
Chubb, Charles M., Oakland, Cal. Tramway for curves and cable-gripes.....	235,127	Dec. 7	75	23, 24	18	1294
Chubb, Thomas H., Post Mills, Vt. Float and sinker for fishing-lines.....	235,510	Dec. 14	560	160	18	1383
Chubb, Thomas H., Post Mills, Vt. Reel-fastener for fishing-rods.....	235,511	Dec. 14	561	160	18	1383
Chubb, Thomas H., Post Mills, Vt. Metallic reel-seat for fishing-rods.....	235,512	Dec. 14	562	160	18	1383
Chubb, Thomas H., Post Mills, Vt. Metallic reel-seat for fishing-rods.....	235,513	Dec. 14	563	160	18	1383
Chunn, Robert P. (See Le Noir and Chunn.)						
Church, Dwight M., Derby, Conn. Paper strip from which to manufacture paper bobbins.....	231,536	Aug. 24	1081	303	18	441
Church, E. Theodore, Charlotte, Mich. Bow and arrow rack.....	223,667	Jan. 20	566	153	17	119
Church, Henry A. (See Shurtleff, William H., assignor.)						
Church, Henry A., Providence, R. I. Lacing-hook.....	227,094	May 4	4	2	17	979
Church, Henry A., Providence, R. I. Ornamental chain.....	230,745	Aug. 3	171	50	18	274
Church, Joshua G., Breckenridge, Tex. Spinning-wheel.....	229,093	June 22	1144	312	17	1426
Church, Robert, St. Lambert, Quebec, Canada. Boot.....	225,569	Mar. 16	697	205	17	597
Churchill, James D., Upper Holloway, Great Britain. Governor.....	231,274	Aug. 17	793	222	18	389
Churchill, John, Bristol, Conn. Lantern-holder.....	225,994	Dec. 23	1163	323	18	1498
Churchill, Leo, Troy, N. Y. Shirt-bosom attachment.....	223,514	June 8	425	116	17	1303
Churchill, Moses, Lowell, Mass. Plate-lifter.....	230,108	July 20	709	198	18	134
Churchman, Leister, Bryan, Ohio. Washing-machine.....	226,280	Apr. 6	149	42	17	773
Churchman, Thomas C., Sacramento, Cal. Harness.....	234,701	Nov. 23	1104	297	18	1193
Cincinnati Tin and Japan Company et al. (See Ell, Frederic, assignor.)						
City Chemical Company. (See Marsh, James L., assignor.)						
Clacher, Thomas L., New York, N. Y. Pamphlet-box.....	226,717	Apr. 20	678	189	17	881
Clafin, Frank O. (See Tidd and Clafin.)						
Clairoux, Louis D., Detroit, Mich. Fruit-gathering apparatus.....	235,413	Dec. 14	434	122	18	1362
Clapp, Charles F., Ripon, Wis. Trunk.....	232,684	Sept. 23	971	267	18	707
Clapp, William F., Allemanee, N. C. Refrigerator.....	225,109	Mar. 2	151	43	17	482
Clardy, John W., Childersburg, Ala. Steam road-wagon.....	227,096	May 4	6	2	17	979
Clardy, John W., Childersburg, Ala. Locomotive-engine.....	228,172	June 1	14	4, 5	17	1229
Clark, Allen B. and J. J., Canisteo, N. Y. Neck-yoke.....	227,413	May 11	379	111	17	1051
Clark, Andrew J., Little Falls, Minn. Book for holding blank forms.....	225,343	Mar. 9	435	126	17	542
Clark, Benjamin F., Philadelphia, Pa. Meat-hook.....	225,345	Mar. 9	437	127	17	542
Clark, Charles B., Detroit, Ind. Door-hanger.....	233,659	Oct. 26	1088	303	18	943
Clark, Charles B., and J. T. Lambert, Detroit, Mich.; said Lambert assignor to said Clark. Stove-pipe damper.....	235,514	Dec. 14	564	161	18	1383
Clark, Charles E., Rochester, N. H. Lasting-jack.....	234,960	Nov. 30	1427	354	18	1252
Clark, Chester W., Mishawaka, Ind. Machine for reducing wood to pulp.....	229,588	July 6	94	25	18	23
Clark, Chester W., Mishawaka, Ind. Wood-pulp machine.....	231,761	Aug. 31	1349	350	18	491
Clark, Clara P., Wakefield, Mass. Underwaist.....	235,340	Dec. 14	352	96	18	1347
Clark, Cornelius, Brooklyn, assignor to himself and C. H. Smith, New York, N. Y. Ruching-machine.....	226,719	Apr. 20	680	189	17	881
Clark, Cynthia J. (See Clark, Jasper, assignor.)						
Clark, David W., Tidouite, Pa. Window-sash.....	225,570	Mar. 16	698	205	17	598
Clark, David W., Tidouite, Pa. T-coupling.....	227,148	May 4	75	20	17	990
Clark, Dwight S., et al. (See Bowers, John M., assignor.)						
Clark, Edmund H., assignor to E. H. Clark, Long Branch, N. J., and H. Van Hovenberg, New York, N. Y. Device for deadening sound-vibrations in telegraph-wires.....	227,095	May 4	5	2	17	979
Clark, Edward, et al. (See Weiss, William, assignor.)						
Clark, Edward, Brooklyn, N. Y. Recovering sulphuric acid from sludge-acid.....	232,685	Sept. 23	972	267	18	707
Clark, Edward B. (See Perkins and Clark.)						
Clark, Elias. (See Ingram and Clark.)						
Clark, Ellery C., De Pere, assignor of one-half interest to A. J. Webster, Menasha, Wis. Hub-turning machine.....	229,096	June 22	1146	313	17	1426
Clark, Emily A., Alexandria, Nebr. Washing-machine.....	226,976	Apr. 27	995	276	17	943
Clark, Erastus J., St. Joseph, assignor of one-half interest to J. L. Ray, Champaign, Ill. Car-coupling.....	223,794	Jan. 20	700	189	17	141
Clark, Erastus J., St. Joseph, Ill. Gate.....	228,314	June 1	182	51	17	1256
Clark, Frank E. (See Hadfield and Clark.) (Reissue.)						
Clark, Franklin A., Cleveland, Ohio. Eyeglass-holder.....	235,995	Dec. 23	1165	323	18	1498
Clark, Franklin L., Lancaster, Pa. Match-lighting attachment to hats, &c.....	224,878	Feb. 24	1071	307	17	425



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Clark, George, <i>et al.</i> (See Long, William H., assignor.)						
Clark, George B., Bethesda, Ohio. Hand-drill.....	230,746	Aug. 3	172	51	18	274
Clark, Hiram, Syracuse, N. Y. Snow-shovel.....	232,456	Sept. 21	712	197	18	656
Clark, Isaiah M., Coldwater, Mich. Paper veneer.....	224,388	Feb. 10	480	137	17	302
Clark, James B. and L. C., Plantsville, Conn. Machine for heading bolts.....	230,920	Aug. 10	383	110	18	316
Clark, James W., assignor of one-half interest to J. Algeo, Kirkersville, Ohio. Corn-planter.....	227,488	May 11	466	134	17	1065
Clark, Jasper, assignor to C. J. Clark, La Porte, Pa. Saw-tooth swage.....	226,977	Apr. 27	996	277	17	943
Clark, Joel J. (See Clark, Allen B. and J. J.)						
Clark, John M., Dayton, Ohio. Combined flour bin and sifter.....	226,441	Apr. 13	343	98	17	816
Clark, Joseph, Kensington, England. Excavator.....	234,851	Nov. 30	1294	348	18	1230
Clark, Joseph W., Buffalo, N. Y. Fruit-drier.....	233,073	Oct. 12	342	94	18	801
Clark, J. S., <i>et al.</i> (See Morgan, Hubert W., assignor.)						
Clark, Locklin N., assignor of one-half interest to B. H. Lawson, Brighton, Mich. Straw-stacker.....	225,344	Mar. 9	436	127	17	542
Clark, Lucas C. (See Clark, James B. and L. C.)						
Clark, Lucas C., Plantsville, Conn. Whip-socket. (Reissue).....	9,354	Aug. 24	1204	337	18	462
Clark, Malcom G., Leicester, Mass. Wire-stretcher.....	230,529	July 27	1232	348	18	224
Clark, Nathan B., Germantown, Pa. Armored vessel.....	231,899	Sept. 7	25	6	18	528
Clark, Partrick J. (See Kintz, Joseph, assignor.)						
Clark, Philander, Milpitas, Cal. Coin counter and changer.....	232,596	Sept. 28	871	241	18	690
Clark, Robert, Jr., assignor to Yates, Wharton & Co., Newark, N. J. Hat-flanging machine.....	228,606	June 8	540	144	17	1320
Clark, Robert J., Chestnut Level, assignor of one-third interest to J. C. Rutter, Summit Hill, Pa. Hay-tedder.....	231,211	Aug. 17	728	204	18	378
Clark, Roswell M., McPherson, Kans. Wheel-plow.....	230,528	July 27	1231	347	18	223
Clark, Samuel G., Cleveland, Ohio. Apparatus for extracting oil.....	224,075	Feb. 3	124	36	17	224
Clark, Samuel J., Detroit, Mich. Vinegar-generator.....	235,996	Dec. 28	1165	324	18	1498
Clark, Thomas C., assignor of one-half interest to J. Stratton, Oakland, and R. E. Coady, Alameda, Cal. Extracting precious metals from ores.....	229,586	July 6	93	.....	18	23
Clark, William A. (See Jordan and Clark.)						
Clark, William L. C., <i>et al.</i> (See Barkheimer, Joseph, assignor.)						
Clark, William P., Medford, Mass. Draft-tube for drawing soda-water, &c.....	229,304	June 29	1382	379	17	1468
Clark, William R., Detroit, Mich. Shaft-coupling for two-wheeled vehicles.....	231,212	Aug. 17	729	204	18	378
Clark, William S. (See Perkins and Clark.)						
Clarke, F. De Witt. (See Ham, Charles T., assignor.)						
Clarke, F. D. W., <i>et al.</i> (See Orphy, John W., assignor.)						
Clarke, Francis D., and M. G. Foster, New York, N. Y. Device for aiding the deaf to hear.....	226,902	Apr. 27	904	251	17	929
Clarke, Frederick W., Brooklyn, N. Y. Separable button.....	234,754	Nov. 23	1163	314	18	1202
Clarke, Henry, Loughborough, England. Feed mechanism for circular-knitting machines.....	234,535	Nov. 16	873	232 233	18	1149
Clarke, James S., Derby, England. Machine for washing and soaking bottles, &c.....	228,868	June 15	883	241	17	1380
Clarke, Lafe W. (See Keating, Clarke, and Gelatt.)						
Clarke, Stephen G. (See Farwell, Willard B., assignor.)						
Clarke, Thomas, Truro, Nova Scotia, Canada. Stock-car.....	225,507	Mar. 16	625	183	17	584
Clarke, Thomas, Truro, Nova Scotia, Canada. Sleeping-car.....	232,686	Sept. 28	973	267 268 269	18	707
Clarkson, Edward H. N., assignor to F. B. Sloan and F. S. Clarkson, Baltimore, Md. Mortising-machine. (Reissue).....	9,221	June 1	300	85	17	1275
Clarkson, Edward H. N., assignor to F. B. Sloan and F. S. Clarkson, Baltimore, Md. Sash-cord guide. (Reissue).....	9,222	June 1	302	85	17	1275
Clarkson, Frank S., <i>et al.</i> (See Clarkson, Edward H. N., assignor.) (Reissue.)						
Clarkson, Frank S., Baltimore, Md. Bedstead-fastening.....	223,837	Jan. 27	771	206	17	163
Clarkson, Frank S., Baltimore, Md. Caster.....	223,838	Jan. 27	772	206	17	163
Clarkson, Frank S., Baltimore, Md. Sash-cord guide.....	225,969	Mar. 30	1190	338	17	701
Clarkson, Frank S., Baltimore, Md. Bedstead fastening.....	228,728	June 15	708	194	17	1356
Class, Albert G. (See Bishop and Class.)						
Class, Albert G., assignor of one-half interest to K. D. Bishop, Cleveland, Ohio. Drain-faucet.....	224,582	Feb. 17	710	202	17	350
Class, William F., and J. C. Briegleb, Cleveland, Ohio. Hydraulic motor.....	223,707	Jan. 20	607	162 163	17	125
Class, William F., assignor to K. D. Bishop, Cleveland, Ohio. Valve-gear for fluid-motors.....	226,494	Apr. 13	404	114 115	17	826
Classen, August, Chicago, Ill. Apparatus for teaching arithmetic.....	234,247	Nov. 9	515	142	18	1081
Classen, Claus C., Chicago, Ill. Bridge-gate.....	227,613	May 18	611	175	17	1100
Claugier, George, Attleborough, Mass. Collar button and stud.....	234,961	Nov. 30	1428	384	18	1252
Clawson, Clement C., assignor of one-half interest to W. Simpson, Raleigh, N. C. Machine for measuring and packing tobacco. (Reissue).....	9,172	Apr. 27	1140	312	17	965
Clawson, Milton J., assignor of one-half interest to L. Fisher, Eaton, Ohio. Seeding-machine.....	226,442	Apr. 13	344	98	17	816
Clay, Henry, Philadelphia, Pa. Underground-telegraph conductor.....	226,159	Apr. 6	12	4	17	748
Clay, Moses W., Foxburg, assignor of one-half interest to S. B. Mercer, Loyalhanna township, Clarion county, Pa. Device for converting motion.....	233,982	Nov. 2	188	49	18	1018
Clay, Robert J., Waterbury, Conn., assignor of one-fourth interest to A. H. Dodd, New York, N. Y. Toy watch.....	223,884	Jan. 27	831	222	17	172
Clayton, Harry, Philadelphia, Pa. Fan.....	225,346	Mar. 9	438	127	17	543
Clayton, Herbert, Cincinnati, Ohio. Stove-pipe shelf.....	229,957	July 13	521	144	18	94
Clayton, Jacob P., <i>et al.</i> (See Donaldson, Samuel, assignor.)						
Clayton, John, assignor to M. A. Clayton, Brainerd, Minn. Colter.....	229,381	June 29	1477	406	17	1480
Clayton, Mary A. (See Clayton, John, assignor.)						
Clayton, Oliver P., Holly Springs, Ga. Tuxere.....	233,602	Oct. 26	1019	284	18	932
Clayton, William H., Carrollton, Ga. Tenon-sawing machine.....	233,981	Nov. 2	187	48, 49	18	1018
Clearwaters, James A., assignor of one-half interest to E. Miller, Goodland, Ind. Check-row corn-planter.....	230,469	July 27	1169	330	18	213
Cleary, John. (See Dillon and Cleary.)						
Cleary, John. (See Dillon and Cleary.) (Reissue.)						
Cleave, Walter E., and H. Gordon, Howell, Mich. Musical chart.....	223,994	Feb. 3	24	8	17	207
Cleveland, Lorenzo D., Chicago, Ill. Sash-fastener.....	228,729	June 15	709	195	17	1356
Cleveland, Lorenzo D., Chicago, Ill. Sash-fastening.....	231,401	Aug. 24	932	263	18	419
Cleaves, Alfred H., Springfield, Ill. Machine for stoning watch-plates, &c.....	231,275	Aug. 17	796	223	18	389
Clement, Austin, Chicago, Ill. Overalls.....	234,391	Nov. 16	707	190	18	1120
Clement, Benjamin F., assignor to Buck's Stove Company, St. Louis, Mo. Heating-stove.....	232,457	Sept. 21	713	197	18	656
Clement, John P., Grinnell, Iowa. Cattle-pump.....	229,587	July 6	94	25	18	23
Clements, James. (See Dill, Thomas, assignor.)						
Clements, Jannaro S., San Francisco, Cal. Automatic railway-switch.....	236,136	Dec. 28	1338	367	18	1526
Clements, Thomas, Jersey City, N. J. Trap or valve for safety-pipes.....	229,094	June 22	1145	312	17	1426

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Clemmens, Samuel B., Springfield, Ohio. Refrigerator.....	234,457	Nov. 16	787	211	18	1134
Clemons, Alfred, Buffalo, N. Y. Machine for holding up ceiling-paper while hanging the same.	230,404	July 27	1090	307	18	200
Clemons, De Laski T., assignor to himself and J. M. Deutsch, Hornellsville, N. Y. Table-leaf support.....	227,732	May 18	751	212	17	1121
Clendenin, James W., <i>et al.</i> (See Hadden, William, assignor.)						
Clerk, Dugald, Glasgow, North Britain. Gas-motor engine.....	230,470	July 27	1171	331	18	213
Cleveland, Charles H., Caddo Parish, La. Suspender-clasp.....	231,999	Sept. 7	151	39	18	548
Cleveland, Edwin R., Unionville, Ohio. Condensed cider compound.....	233,728	Oct. 26	1163		18	955
Cleveland, Orestes. (See Holton, Francis H., assignor.)						
Cliff, Edward, Newark, N. J., assignor of one-half interest to R. Vose, New York, N. Y. Car-spring.....	226,597	Apr. 20	545	153	17	860
Cliff, Edward, Newark, assignor to Cliff & Righter, West Bergen, N. J. Car-spring.....	231,150	Aug. 17	645	182	18	365
Cliff & Righter. (See Cliff, Edward, assignor.)						
Clifford, John, Chicago, Ill. Hose-nozzle.....	229,521	July 6	13	3	18	10
Clime, John C. (See Baltz, Henry W., Sr., assignor.)						
Climer, Henry. (See Jones and Stewart, assignors.)						
Climie, Andrew, Ann Arbor, Mich. Fence-post.....	228,037	May 25	1114	317	17	1190
Climie, Andrew, Ann Arbor, Mich. Commode.....	228,313	June 1	181	51	17	1256
Climie, Andrew, Ann Arbor, Mich. Belt.....	235,741	Dec. 21	839	234	18	1436
Cline, George J., Goshen, Ind. Pruning implement.....	225,798	Mar. 23	978	281	17	654
Clinton, Charles A. (See Matthai and Clinton.)						
Clinton, Henry E., Augusta, Ga. Lamp-stand.....	233,983	Nov. 2	190	49	18	1018
Clinton, Henry E., Augusta, Ga. Box-fastener.....	233,984	Nov. 2	190	49	18	1018
Clippinger, Isaiah A., Plainfield, Ill., assignor to himself and H. Henley, Bloomington, Ind. Bed-bottom spring.....	232,390	Sept. 21	629	173	18	643
Clogston, Lucius B., Fair Haven, Vt. Stone-turning lathe.....	224,150	Feb. 3	201	58, 59	17	237
Clogston, Lucius B., Fair Haven, Vt. Slate-sawing machine.....	232,000	Sept. 7	152	40	18	548
Clopton, John B., Elgin, Tex. Mechanical telegraph-sounder.....	229,095	June 22	1146	313	17	1426
Close, Charles T., Brooklyn, N. Y. Door-check.....	227,414	May 11	379	112	17	1051
Close, Jacob H., Phillipsburg, Kans. Plow.....	223,708	Jan. 20	610	163	17	126
Close, John W., Buffalo, N. Y. Rotary snow-clearer for railway-tracks.....	225,917	Mar. 30	1115	319	17	691
Close, John W., Buffalo, N. Y. Snow-clearer for railway-tracks, &c.....	226,222	Apr. 6	85	22	17	761
Cloud, William H., Otsego, Mich. Pump-brake.....	224,389	Feb. 10	481	138	17	302
Clough, Aaron S., Meredith, assignor of one-half interest to M. H. Merrow, New Hampton, N. H. Reversible plow.....	232,001	Sept. 7	155	40	18	549
Clough, Francis W., assignor to N. C. Newell, Springfield, Mass., and J. C. Dickinson, New York, N. Y. Machine for attaching buttons to sale-cards.....	224,583	Feb. 17	711	202, 203, 204	17	350
Clough, Francis W., assignor of one-half to N. C. Newell, Springfield, Mass., and J. C. Dickinson, New York, N. Y. Gage-lathe.....	234,536	Nov. 16	875	233, 234	18	1149
Clough, Frederick M. (See Nunns and Clough.)						
Clough, John B. (See Horsley, William R., assignor.)						
Clough, Joseph, Providence, R. I. Reclining-chair.....	228,869	June 15	884	241	17	1330
Clough, Joseph, Providence, R. I. Animal-shears.....	232,938	Oct. 5	170	45	18	766
Clough, Morton M., Marlborough, Mass. Machinery for skiving leather.....	227,347	May 11	309	90	17	1040
Clough, William R., Brooklyn, N. Y. Chair.....	234,537	Nov. 16	878	234	18	1150
Clough, William R., Brooklyn, N. Y. Wire hook and tack.....	235,515	Dec. 14	565	161	18	1383
Clough, William R., Newark, N. J. Nursery-pin.....	230,240	July 20	858	243	18	156
Clough, William R., Newark, N. J. Nursery-pin.....	234,962	Nov. 30	1428	384	18	1252
Clouse, George W., <i>et al.</i> (See McAnulty, John A., assignor.)						
Clubb, Robert. (See Wright, Clubb, Nash, and Klees.)						
Cluett, J. W. Alfred, Troy, N. Y. Collar.....	230,109	July 20	710	198	18	134
Clute, Theodore N. (See Zimmerman and Clute.)						
Cluxton, James R., Hillsborough, Ohio. Water-elevator.....	234,538	Nov. 16	879	234	18	1150
Cluxton, John A., Bentonville, Ohio. Drag-saw.....	226,718	Apr. 20	679	189	17	881
Coady, Richard E., <i>et al.</i> (See Clark, Thomas C., assignor.)						
Coale, Atlee V., <i>et al.</i> (See Liebmann, Herman F. W., assignor.)						
Coaney, George D., <i>et al.</i> (See Murdoch and Haynes, assignors.) (Reissue.)						
Coart, James, Harrisburg, Pa. Car-coupling.....	232,687	Sept. 28	976	269	18	708
Cobb, Oliver P., assignor of one-half interest to J. Black, Aurora, Ind. Machine for assorting nails.....	225,919	Mar. 30	1118	319	17	691
Cobb, Samuel C., assignor to J. B. Crosby, Janesville, Wis. Harrow.....	224,273	Feb. 10	348	100	17	251
Cobb, Samuel C., assignor to J. B. Crosby, Janesville, Wis. Harrow-tooth attachment.....	224,274	Feb. 10	349	100	17	281
Cobb, Samuel C., assignor to J. B. Crosby, Janesville, Wis. Harrow-tooth attachment.....	224,275	Feb. 10	351	100	17	281
Cobb, Samuel C., assignor to J. B. Crosby, Janesville, Wis. Spring-tooth harrow.....	235,071	Dec. 7	12	3	18	1233
Cobb, Thomas, Brookfield, Ga. Stringed musical instrument.....	223,318	Jan. 6	133	33	17	24
Cobb, Walter T. G., Midway, Ala. Horse-power equalizer.....	228,173	June 1	15	5	17	1229
Coburn, Joseph W., East Walpole, Mass. Door-hanger.....	228,607	June 8	541	144	17	1320
Coburn, Melville B., Cincinnati, Ohio. Machine for molding fire-kindlers and fuel.....	224,996	Mar. 2	15	5	17	459
Coburn, Melville B., Cincinnati, Ohio. Stove-pipe shelf.....	227,733	May 18	752	212	17	1121
Cochran, James, East New York, N. Y. Electro-magnetic car-brake.....	231,276	Aug. 17	796	223	18	389
Cochran, James T., Brooklyn, N. Y. Horseshoe.....	224,276	Feb. 10	352	101	17	281
Cochran, Thomas, Brooklyn, N. Y. Telegraphic sounder.....	228,608	June 8	542	145	17	1320
Cochran, Thomas, Brooklyn, N. Y. Circuit-equalizer for telegraph-sounders.....	228,871	June 15	886	241	17	1380
Cochran, Thomas, Brooklyn, N. Y. Adjustable armature for electrical apparatus.....	235,997	Dec. 28	1166	324	18	1498
Cochrane, Thomas A., San Francisco, Cal., assignor, by mesne assignments, to J. Hendy. Feeder for quartz-mills. (Reissue.).....	9,048	Jan. 20	702	189	17	141
Cochrane, Thomas A., San Francisco, Cal., assignor to J. Hendy. Ore-stamp feeder. (Reissue.).....	9,061	Feb. 3	326	94	17	257
Cochrane, William F., Harper's Ferry, W. Va. Mechanical movement.....	234,906	Nov. 30	1361	365	18	1241
Codding, Seth E., New Bedford, Mass. Underground conduit for telegraph-conductors.....	231,537	Aug. 24	1082	304	18	441
Coddington, William C., assignor to S. G. B. Cook, Baltimore, Md. Caster.....	223,839	Jan. 27	773	207	17	163
Coddington, William C., Baltimore, Md. Faucet.....	228,038	May 25	1115	317	17	1190
Coddington, William C., assignor of two-thirds interest to C. S. and H. D. Shriver, Baltimore, Md. Whiffletree-hook.....	229,959	July 13	523	145	18	95
Coddington, William C., assignor of two-thirds interest to C. S. and H. D. Shriver, Baltimore, Md. Wrench.....	231,763	Aug. 31	1351	380	18	491
Coddington, William C., assignor of one-half interest to S. G. B. Cook, Baltimore, Md. Vulcanite-fiber cutter.....	233,205	Oct. 12	502	138	18	828
Cody, Michael, Boston, Mass. Machine for washing bottles, lamp-chimneys, tumblers, &c.....	232,458	Sept. 21	713	197	18	656
Coe, Franklin L. (See Snow and Coe.)						
Coe, Frederick W. (See Willard, Hosea, assignor.)						
Coe, Stephen A., Yates Centre, N. Y. Sheep-rack.....	226,650	Apr. 20	609	170	17	869
Coes, John H., Worcester, Mass. Wrench.....	232,114	Sept. 14	286	81	18	579

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Coes, Loring, Worcester, Mass. Wrench.....	229,673	July 6	183	51	18	35
Coffin, Charles C., Boston, Mass. Convertible grain-car.....	225,918	Mar. 30	1116	319	17	691
Coffman, Jacob H., West Philadelphia, Pa. Vehicle-brake.....	227,348	May 11	311	90	17	1040
Coggin, Simon L., Oxford, Miss. Harrow and cultivator.....	233,730	Oct. 26	1164	323	18	955
Coggins, O. Chester, assignor to O. B. North & Co., New Haven, Conn. Carriage-top.....	224,879	Feb. 24	1072	307	17	425
Coggins, O. Chester, New Haven, Conn. Carriage-spring.....	225,970	Mar. 30	1191	338	17	702
Coggins, O. Chester, assignor to O. B. North & Co., New Haven, Conn. Carriage-top.....	228,444	June 8	334	92	17	1290
Coggswell, Charles, Dodge Centre, Minn. Bob-sled.....	234,963	Nov. 30	1430	384	18	1253
Cohen, Isaac S., New York, N. Y. Combined tippet and collarlet.....	228,873	June 15	888	242	17	1380
Cohen, Jacob, <i>et al.</i> (See Day, John R., assignor.)						
Cohen, Phillip, Selma, Ala. Bale-tag.....	231,277	Aug. 17	798	223	18	389
Cohn, Joseph, New York, N. Y. Spittoon.....	232,391	Sept. 21	629	173	18	643
Cohn, Moritz, New York, N. Y. Corset.....	224,076	Feb. 3	126	36	17	224
Coit, Robert A., New York, N. Y. Lamp-cap.....	228,730	June 15	710	195	17	1356
Colahan, Charles. (See Mudgett, Joseph H., assignor.) (Reissue.)						
Colbert, Obadiah M. (See Adair and Colbert.)						
Colburn, Adoniram J., Greenville, Mich. Straw-cutter.....	230,747	Aug. 3	173	51	18	274
Colburn, George S., Gardner, Mass. Attachment for cane-shaving machines.....	224,515	Feb. 17	629	182	17	337
Colby, John H. (See Turner, Isaac P., assignor.)						
Colby, John J. (See Wentworth and Colby.)						
Cole, Benjamin, <i>et al.</i> (See Glenn, Lawrence, assignor.)						
Cole, Charles L., Bushnell, Ill., assignor of one-half interest to J. A. James. Coffee-roaster.....	224,392	Feb. 10	484	139	17	302
Cole, Columbus M. (See Cole, Joseph W. and C. M.)						
Cole, Francis M., Milford, N. H. Carding-machine.....	233,206	Oct. 12	503	138	18	828
Cole, George P., assignor of three-fourths interest to J. and P. Keck and P. Hedden, Johnstown, N. Y. Composition for cleansing marble, &c.....	234,539	Nov. 16	881	.....	18	1150
Cole, Henry, Royalton, Ohio. Riding attachment for cultivators.....	224,390	Feb. 10	482	138	17	302
Cole, James A., Northville, N. Y. Heel-plate.....	226,720	Apr. 20	682	190	17	881
Cole, James A., Northville, N. Y. Counter and heel protector.....	231,764	Aug. 31	1352	380	18	491
Cole, James R., Warm Springs, N. C. Hydraulic engine.....	226,598	Apr. 20	546	153	17	860
Cole, John J., St. Louis, Mo. Lightning-rod.....	229,382	June 29	1477	407	17	1480
Cole, John L., Williamstown, Mass. Car brake and starter.....	223,885	Jan. 27	832	222	17	172
Cole, Joseph W. and C. M., Warren County, Ky. Centrifugal honey-extractor.....	224,654	Feb. 17	793	224	17	364
Cole, J. Wendell, Columbus, Ohio. Grinding and polishing wheel.....	226,978	Apr. 27	997	277	17	943
Cole, J. Wendell, Columbus, Ohio. Direct-acting steam-engine.....	233,208	Oct. 12	505	{ 139 140 }	18	829
Cole, Seymour S., Aurora, Ind. Hitching device.....	230,922	Aug. 10	386	111	18	317
Cole, Wesley, Rochester, Minn. Vehicle-spring.....	234,964	Nov. 30	1430	385	18	1253
Coleman, Albert G., <i>et al.</i> (See Atwater, John B., assignor.)						
Coleman, Ezra, San Francisco, Cal. Rock-crusher.....	223,581	Jan. 13	455	{ 123 124 }	17	92
Coleman, Ezra, San Francisco, Cal. Box for amalgamator spindles and shafts.....	224,277	Feb. 10	353	101	17	281
Coleman, Ezra, San Francisco, Cal. Ore-stamp feeder.....	228,609	June 8	543	145	17	1320
Coleman, Jaius, Peoria, Ill. Grain-spout for loading cars, &c.....	232,597	Sept. 28	872	241	18	691
Coleman, John H., New York, and G. W. Aldrich, Brooklyn, N. Y. Oil-can faucet.....	229,805	July 13	351	98	18	68
Coleman, John H., New York, and G. W. Aldrich, Brooklyn, N. Y. Oil-can faucet.....	229,806	July 13	352	98	18	68
Coleman, John H. S. (See Hall and Coleman.)						
Coleman, Joseph J., Glasgow, Scotland. Refrigerating apparatus.....	226,281	Apr. 6	150	43	17	773
Coleman, William S. (See Hazlewood, Reagin, and Coleman.)						
Coleman, William T. (See Winter, Alexander W., assignor.)						
Coler, Peter P., Clymer, Wis. Mower.....	234,965	Nov. 30	1431	385	18	1253
Colfelt, James P., Winchester, Va. Journal-bearing.....	224,391	Feb. 10	483	138	17	302
Coll, Hugh, Black Hawk P. O., Pa. Ejector. (Reissue.).....	9,199	May 18	901	257	17	1146
Coll, Hugh, Black Hawk, Pa. Steam-operated water-ejector. (Reissue.).....	9,380	Sept. 21	847	236	18	680
Colladay, Jacob W., Decatur, Ill. Corn-planter.....	223,483	Jan. 13	342	91	17	73
Colladay, Joseph O. (See Herschel, William D., assignor.)						
Collat, Isaac, Boston, Mass. Ink-fountain.....	232,335	Sept. 21	556	154	18	631
Collender, Hugh W. (See De Gactano, Stephen, assignor.)						
Collender, Hugh W. (See Walsh, John, assignor.)						
Collian, Victor, Detroit, Mich. Washing-machine.....	231,762	Aug. 31	1350	380	18	491
Collignon, Claudius O., Westwood, N. J. Folding rocking-chair.....	223,995	Feb. 3	25	8	17	207
Collinge, Alexander J., Independence, Iowa. Steam-generator.....	232,459	Sept. 21	714	198	18	656
Collingham, Barnard. (See Newton, Robert, assignor.)						
Collings, Edward Z., <i>et al.</i> (See Lamb, Restore B., assignor.)						
Collings, William, Afton, Iowa. Feed-steamer.....	233,074	Oct. 12	343	95	18	801
Collingwood, James H., Poughkeepsie, N. Y. Railway-rail.....	229,532	July 6	15	4	18	10
Collingwood, James H., Poughkeepsie, N. Y. Railway-chair.....	234,458	Nov. 16	789	212	18	1134
Collingwood, William A. (See Martin, Timothy A., assignor.)						
Collins, Andrew J., Kansas City, Mo. Earth-anger.....	225,508	Mar. 16	629	184	17	585
Collins, Caroline D., Lebanon, N. H. Shoe.....	227,097	May 4	7	2	17	980
Collins Company. (See Chapman, Luke, assignor.)						
Collins, Cope & Co., A. M. (See Hastings, Orlando B., assignor.)						
Collins, Daniel, Zanesfield, Ohio. Grain-meter.....	227,217	May 4	154	45	17	1003
Collins, Daniel, Princess Anne, Md. Liniment.....	228,870	June 15	886	.....	17	1380
Collins, Daniel H., J. W. T. Tuttle, and H. C. Collins, New Haven, Conn. Velocipede.....	230,176	July 20	784	219	18	145
Collins, Davis. (See Dark, Collins, and Nelson.)						
Collins, Erastus, <i>et al.</i> (See Morgan, Hubert W., assignor.)						
Collins, George, and J. Longton, Detroit, Mich. Car-brake.....	227,218	May 4	155	46	17	1008
Collins, Henry C. (See Collins, Tuttle, and Collins.)						
Collins, Henry H., Pittsburg, Pa. Tube-expander.....	223,840	Jan. 27	773	207	17	163
Collins, John, Brooklyn, N. Y. Apparatus for generating gas for soda-water.....	228,315	June 1	183	51	17	1257
Collins, John, Brooklyn, N. Y. Apparatus for generating gas for mineral waters.....	231,538	Aug. 24	1083	304	18	442
Collins, John, Brooklyn, N. Y. Wagon for gaseous-liquid fountains.....	231,539	Aug. 24	1083	304	18	442
Collins, John, Brooklyn, N. Y. Lining gas-generators, acid-chambers, and fountains for mineral waters.....	231,540	Aug. 24	1084	.....	18	442
Collins, John, Brooklyn, N. Y. Wagon for gaseous-liquid fountains.....	232,002	Sept. 7	157	40	18	549
Collins, John, Brooklyn, N. Y. Faucet for dispensing mineral water.....	232,003	Sept. 7	157	41	18	549
Collins, John K., Lebanon, N. H. Mop-head.....	232,688	Sept. 28	977	269	18	708
Collins, John K., Lebanon, N. H. Combined wrench and screw-driver.....	234,540	Nov. 16	882	235	18	1150
Collins, John W., Chicago, Ill. Middlings-prifer.....	227,882	May 25	937	269	17	1163
Collins, John W., Chicago, Ill. Device for clearing the meshes of screens or bolts.....	227,883	May 25	939	269	17	1163
Collins, John W., Chicago, Ill. Dust-arrester for flour-mills.....	227,957	May 25	1030	294	17	1177
Collins, John W., Chicago, Ill. Cockle-separator.....	235,623	Dec. 21	704	199	18	1413
Collins, Joseph, Conshohocken, Pa. Grate.....	223,634	Jan. 20	529	142	17	113

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Collins, Joseph H., Jr. (See Granger and Collins.)						
Collins, Patrick B., South Boston, Mass. Support for carriage-tops.....	233,729	Oct. 26	1164	323	18	955
Collins, Stephen, Indianapolis, Ind. Machine for scraping animal carcasses.....	224,816	Feb. 24	1002	284	17	413
Collins, Val P., Covington, Ky. Apparatus for evaporating brine.....	229,871	July 13	428	118	18	80
Collins, Warren, and C. F. Penniman, Janesville, Wis. Harness-buckle.....	228,872	June 15	887	242	17	1380
Collins, Warren, and C. F. Penniman, Janesville, Wis. Snap-hook.....	235,072	Dec. 7	14	4	18	1283
Collins, William G., Olean, assignor, by mesne assignments, to T. V. Allis, New York, N. Y. Barbed fence. (Reissne).....	9,211	May 25	1253	355	17	1212
Collins, William H., Chelsea, Mass. Soda-water apparatus.....	232,803	Oct. 5	7	2, 3	18	740
Collis, Fred L., Freedom Centre, Ill. Corn-husking machine.....	223,174	June 1	16	5	17	1229
Coloney, Myron, assignor to J. H. McLean, St. Louis, Mo. Time-shell.....	225,459	Mar. 16	572	165	17	575
Coloney, Myron, assignor to J. H. McLean, St. Louis, Mo. Time-firing mechanism for shells, torpedoes, &c.....	225,460	Mar. 16	573	166	17	575
Coloney, Myron, assignor to J. H. McLean, St. Louis, Mo. Breech-loading ordnance.....	225,461	Mar. 16	574	166	17	575
Coloney, Myron, assignor to J. H. McLean, St. Louis, Mo. Machine-gun.....	225,462	Mar. 16	576	167	17	576
Coloney, Myron, assignor to J. H. McLean, St. Louis, Mo. Magazine-gun.....	231,652	Aug. 31	1223	{ 343 } 344	18	471
Coloney, Myron, New Haven, Conn., assignor to J. H. McLean, St. Louis, Mo. Cartridge.....	225,463	Mar. 16	578	167	17	576
Coloney, Myron, New Haven, Conn., assignor to J. H. McLean, St. Louis, Mo. Cartridge.....	225,464	Mar. 16	579	167	17	576
Coloney, Myron, New Haven, Conn., assignor to J. H. McLean, St. Louis, Mo. Marine torpedo.....	225,465	Mar. 16	580	168	17	576
Coloney, Myron, New Haven, Conn., assignor to J. H. McLean, St. Louis, Mo. Machine-gun.....	225,466	Mar. 16	580	168	17	576
Coloney, Myron, New Haven, Conn., assignor to J. H. McLean, St. Louis, Mo. Machine-gun.....	231,653	Aug. 31	1225	{ 344 } 345	18	472
Coloney, Myron, New Haven, Conn., assignor of one-half to E. Thompson, New York, N. Y. Marine velocipede.....	233,919	Nov. 2	104	27, 28	18	1004
Coloney, Myron, New Haven, Conn., assignor of one-half to E. Thompson, New York, N. Y. Swimming apparatus.....	235,609	Dec. 21	753	214	18	1422
Colshorn, William. (See Canis, Franz, assignor.)						
Colt, Alva M., Batavia, N. Y. Bolt-holder.....	226,836	Apr. 27	822	229	17	916
Coltman, Thomas, Leicester, England. Stop-motion for spinning-machines.....	232,240	Sept. 14	438	{ 120 } 121	18	605
Coltman, Thomas, Leicester, England. Apparatus for stopping, connecting, and disconnecting shafts.....	232,241	Sept. 14	440	121	18	605
Colvin, Benoni, Freeport, Ill. Hand-truck.....	227,489	May 11	468	134	17	1066
Colvin, Benoni, Freeport, Ill. Barrel-truck.....	229,958	July 13	522	144	18	95
Colvin, John, <i>et al.</i> (See Brace, William H., assignor.)						
Colvin, Orson, assignor of one-half interest to R. A. Mills, Schoolcraft, Mich. Windmill.....	226,036	Mar. 30	1272	358	17	714
Colvin, Robert J., assignor of one-half interest to I. L. Landis, Lancaster, Pa. Combined rake and tedder.....	227,734	May 18	754	{ 212 } 213	17	1121
Colwell, Joseph, <i>et al.</i> (See Müller, Tiele H., assignor.)						
Colwell, William S., Pittsburg, Pa. Bismuthide-of-carbon engine.....	225,689	Mar. 23	844	246	17	632
Combes, Isaac, Heckland, Ind. Fruit-picker.....	231,765	Aug. 31	1352	381	18	491
Comee, George W. (See Foley and Comee.)						
Comer, Henry B., Philadelphia, Pa. Roll for rolling iron, steel, &c.....	227,737	May 18	757	214	17	1122
Comer, Henry B., assignor, by mesne assignments, to Cambria Iron Company, Johnstown, Pa. Machinery for rolling wire. (Reissue).....	9,321	July 27	1319	372	18	239
Comerford, James, Rathdrum, Ireland. Device for balancing millstones on their spindles.....	233,207	Oct. 12	503	139	18	828
Comey, Frank E., <i>et al.</i> (See Campbell, Duncan H., assignor.)						
Comey, Willard, Westborough, Mass. Manufacture of hats and bonnets.....	234,852	Nov. 30	1295	348	18	1230
Comins, Charles S., Boston, Mass. Device for heating fluids.....	229,098	June 22	1148	314	17	1427
Comins, Thomas B., Jr., New York, N. Y. Device for compressing corks.....	229,960	July 13	524	145	18	95
Compagnie Industrielle Des Procédés Raoul Pictet. (See Ribourt, Léon, assignor.)						
Compound Lumber Company. (See Brock, William E., assignor.)						
Compton, James. (See Maloney and Compton.)						
Comstock, Charles, Racine, Wis. Corner-iron for wagon-bodies.....	234,853	Nov. 30	1296	349	18	1231
Comstock, Charlie M., Windsor, N. Y. Machine for rolling whips.....	226,495	Apr. 13	405	115	17	826
Comstock, Harry, Fulton, N. Y. Trace or driving-rein.....	235,211	Dec. 7	186	50	18	1312
Comstock, Henry W., Mount Pleasant, Iowa. Tuck-creaser for sewing-machines.....	232,175	Sept. 14	355	99	18	590
Comstock, Levi M., Milwaukee, Wis. Drag-saw machine.....	233,731	Oct. 26	1165	324	18	956
Conant, Eugene H. and G. F., Camden, N. Y. Knockdown rocking-chair.....	229,097	June 22	1147	314	17	1426
Conant, George F. (See Conant, Eugene H. and G. F.)						
Conboy, Daniel, Uxbridge, Ontario, Canada. Carriage-top.....	226,389	Apr. 13	274	81	17	806
Concannon, Patrick, Wallingford, Conn. Device for plating spoons.....	225,571	Mar. 16	698	205	17	598
Condict, Nathan W., Jr., Jersey City, N. J. Portable railway.....	229,674	July 6	184	51	18	36
Condict, Nathan W., Jr., Jersey City, N. J. Portable railway. (Reissne).....	9,298	July 13	694	193	18	122
Condict, Nathan W., Jr., Jersey City, N. J. Portable railway.....	233,477	Oct. 19	855	235	18	894
Condo, Daniel, East Germantown, Ind. Plow.....	235,341	Dec. 14	352	97	18	1347
Condon, Jackson D. (See Shoemaker, Elias H., assignor.)						
Cone, Ezra G., <i>et al.</i> (See Barton, Elijah C., assignor.)						
Congdon, David, New Berne, N. C. Stave for barrels.....	229,099	June 22	1149	314	17	1427
Conger, Walter M., Newark, N. J. Child's table-tray. (Reissue).....	9,304	July 20	1039	294	18	186
Conklin, Augustus H., <i>et al.</i> (See Barton, Elijah C., assignor.)						
Conklin, Benjamin Y., Brooklyn, N. Y. Foot-rest for registers.....	231,402	Aug. 24	933	263	18	419
Conklin, James. (See Hallock, Valentine H., assignor.)						
Conklin, Joseph I., Jr., New York, N. Y. Track circuit-closer.....	234,657	Nov. 23	1050	233	18	1184
Conklin, Theodore F., assignor to himself and A. G. Ruggles, Fond du Lac, Wis. Faucet.....	223,886	Jan. 27	834	222	17	172
Coulan, Bernard, and J. O'Neil, Newark, N. J. Bag-lock.....	223,921	Nov. 2	106	29	18	1004
Connell, James M., Newark, Ohio. Machine for sharpening mower and reaper knives.....	226,037	Mar. 30	1273	359	17	714
Connell, John H., Charleston, Kanawha Court-House, W. Va. Pen-fountain.....	231,403	Aug. 24	933	263	18	419
Connell, John P., Kensington, Conn. Call-bell.....	225,690	Mar. 23	850	246	17	633
Councilce, Charles U., <i>et al.</i> (See Wood, Edmund L., assignor.)						
Connelly, John, Hallowell, Me. Sewing-machine.....	228,611	June 8	545	145	17	1321
Connelly, Martin, Philadelphia, Pa. Printing-ink.....	225,670	Dec. 21	754	.....	18	1492
Connelly, Thomas, Philadelphia, Pa. Heating apparatus.....	233,328	Oct. 19	677	186	18	865
Conner, William N., <i>et al.</i> (See Pierce, George H., assignor.)						
Connett, Matthew F. (See Lear and Connett.)						
Connett, Matthew F., Little Rock, Ark. Baling-press.....	224,655	Feb. 17	794	224	17	364
Conniff, James, Oconto, Wis. Vehicle-axle.....	224,077	Feb. 3	128	36	17	224
Connolly, Patrick, Brooklyn, N. Y. Hydrant.....	223,278	Jan. 6	84	21	17	17
Connor, John, and O. A. Wadsworth, assignors to J. L. Orr, Allegheny, Pa. Fire-grate.....	234,907	Nov. 30	1363	366	18	1241
Connor, John M. (See Beebe, Connor, and Beebe.)						
Connor, Samuel B., and H. Dods, Virginia City, Nev. Automatic balance attachment for delivery-valves of air-compressors and water-pumps.....	232,939	Oct. 5	171	45	18	766



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Connor, Tarrence, Leavenworth, Ind. Spoke-tenoning machine.....	224,333	Feb. 10	485	139	17	303
Conover, Elias, Trumansburg, N. Y. Invalid-bedstead.....	228,318	June 1	186	52	17	1257
Conover, Philip V., Uvalde, Tex. Electric car-brake.....	224,880	Feb. 24	1072	307	17	425
Conover, Richard S., Sayreville, N. J. Register for counting votes.....	228,610	June 8	544	145	17	1320
Conover, Stephen B., New York, assignor of one-third interest to J. P. Elmendorf, Westchester, N. Y. Elevator.....	226,981	Apr. 27	1000	278	17	944
Conrad, John, Burlington, Iowa. Gate roller and hinge.....	233,476	Oct. 19	854	235	18	894
Conrad, John H., Charlotte, Mich. Portable sliding gate.....	232,940	Oct. 5	172	45	18	766
Conrad, Martin. (See Hotz and Conrad.)						
Conrad, Martin, Chicago, Ill. Spring-wagon.....	233,075	Oct. 12	344	95	18	891
Conrick, Frank. (See Agard, Benjamin E., assignor.)						
Conried, Heinrich, New York, N. Y. Ticket-holder.....	226,721	Apr. 20	683	190	17	882
Conroy, Edward, assignor of two-thirds to R. M. Lilley, Boston, Mass. Machine for forming plugs.....	234,966	Nov. 30	1433	{ 385 386 }	{ 18 18 }	{ 1253 1253 }
Conselyea, Ira W. (See Eno, Joseph A., assignor.)						
Consolidated Safety Valve Company. (See Zellner, William, assignor.)						
Convers, Albert E., Taunton, Mass. Neckscarf.....	231,404	Aug. 24	934	264	18	419
Convers, Albert E., Taunton, Mass. Neckscarf.....	234,174	Nov. 9	429	116	18	1065
Convers, Eugene, Oswego, N. Y. Pipe-cutter.....	231,900	Sept. 7	27	6	18	529
Converse, George A., U.S. Navy, assignor to W. N. Hill, trustee, Newport, R. I. Galvanic-battery cell.....	224,328	Feb. 10	411	117	17	291
Converse, John H., et al. (See Longstreth, Edward, assignor.) (Reissue.)						
Conway, John, Nether Providence, Pa. Scale-beam.....	223,217	Jan. 6	10	2	17	4
Conway, John A., Toledo, Ohio. Flower-pot.....	235,516	Dec. 14	567	161	18	1384
Cook, Albert G., Boston, Mass. Tree-protector.....	223,996	Feb. 3	26	9	17	207
Cook, Amasa N. (See Edson, Jacob, assignor.)						
Cook, Andrew J., Wichita, Kans. Dredging-machine.....	226,223	Apr. 6	86	23, 24	17	761
Cook, Chapin C., and J. N. Green, Santa Cruz, Cal. Permutation-padlock.....	226,599	Apr. 20	547	153	17	860
Cook, Charles E., and J. L. Vandermark, Wilkesbarre, Pa. Bag-tie.....	233,475	Oct. 19	853	235	18	894
Cook, Charles O., C. W. Chase, and J. Beard, Oswego, N. Y. Barrel-heater.....	234,908	Nov. 30	1365	366	18	1242
Cook, Cyrus B., Cynthia, Ky. Gear for automatic action of throttle and slide valves.....	225,799	Mar. 23	978	281	17	654
Cook, Egbert C., Chicago, Ill. Awning-frame.....	233,987	Nov. 2	192	50	18	1018
Cook, Egbert C., Chicago, Ill. Awning-frame.....	233,988	Nov. 2	193	50	18	1019
Cook, E. Harlow. (See Kidney, Nelson, assignor.)						
Cook, Emory B., North Bellingham, Mass. Windmill.....	230,614	Aug. 3	21	6	18	25
Cook, Frank, Holden, Mo. Gate-hanger.....	226,980	Apr. 27	999	277	17	944
Cook, George J., Louisville, Ky. Lamp.....	224,394	Feb. 10	486	140	17	303
Cook, George W., assignor to J. F. Tenney, J. H. Reese, and M. D. Stecher, Chicago, Ill. Stove-pipe thimble.....	230,923	Aug. 10	387	111	18	317
Cook, Henry, Monument, Colo. Stove-pipe.....	232,005	Sept. 7	159	41	18	550
Cook, Henry E. (See Thayer and Cook.)						
Cook, Henry E., and J. B. Thayer, River Falls, Wis. Magnetic grain-separator.....	233,920	Nov. 2	105	28	18	1004
Cook, James B., London, Ontario, Canada. Permutation-lock.....	228,316	June 1	184	52	17	1257
Cook, J. N., et al. (See Lanum, Richard B., assignor.)						
Cook, John, Healdsburg, Cal. Baling-press.....	228,515	June 8	425	116	17	1303
Cook, John C. (See Johnson, George R., assignor.)						
Cook, John R., Indianapolis, Ind. Rotary motor.....	230,862	Aug. 10	320	94	18	307
Cook, John T., Jordan, Minn. Feeding-hopper for middlings, &c.....	231,010	Aug. 10	481	137	18	331
Cook, John W. (See Calkins and Cook.)						
Cook, Joseph T., Moline, and J. S. Leas, Rock Island, Ill. Car-coupling.....	224,881	Feb. 24	1073	{ 307 308 }	{ 17 17 }	{ 425 425 }
Cook, Philip, Detroit, Mich. Bench-dog.....	233,986	Nov. 2	192	50	18	1018
Cook, Roswell F., Ilion, N. Y. Sight for fire-arms.....	224,651	Feb. 17	789	223	17	363
Cook, Ruth A. (See Williams, Henry A., assignor.)						
Cook, Samuel G. B. (See Coddington, William C., assignor.)						
Cook, Samuel G. B. (See Kieser, Charles, assignor.)						
Cook, Stephen V., Toledo, Ohio. Ice-elevator.....	235,128	Dec. 7	77	24	18	1294
Cook, Theodore, Trenton, N. J. Heel for boots and shoes.....	226,651	Apr. 20	611	170	17	869
Cook, Thomas B., New Lancaster, Ind. Apparatus for filling ditch-scrapers.....	232,004	Sept. 7	158	41	16	549
Cook, William E., Ivy Mills, Pa. Electric telephone.....	227,736	May 18	756	213	17	1192
Cook, William W., Kansas Centre, Kans. Sulky-harrow.....	224,650	Feb. 17	728	223	17	363
Cooke, Charles E. B., London, J. Cooke and G. Hibbert, Richmond, England. Machine for pulping and grinding fibrous and other materials.....	232,460	Sept. 21	715	198	18	656
Cooke, Charles M., New York, N. Y. Trimming.....	224,151	Feb. 3	203	59	17	237
Cooke, Daniel S., Providence, R. I. Bracelet.....	227,149	May 4	76	21	17	990
Cooke, Daniel S., Providence, R. I. Detachable button.....	227,755	May 18	755	213	17	1121
Cooke, Daniel S., and E. H. Spencer, Jr., Providence, R. I. Button or stud.....	235,853	Dec. 28	994	275	18	1470
Cooke, George K., London, England. Hand-stamp.....	224,395	Feb. 10	487	140	17	303
Cooke, James. (See Cooke and Hibbert.)						
Cooke, William, Westborough, Mass. Illuminated lubricating-can.....	231,405	Aug. 24	935	264	18	419
Cooke, William A., Jr., New York, N. Y. Book.....	227,098	May 4	8	3	17	980
Cookingham, John M., Hudson, N. Y. Bracelet.....	228,039	May 25	1116	318	17	1190
Coolbaugh, Frank W., Hoboken, N. J. Holder for signal lanterns and flags.....	232,461	Sept. 21	716	198	18	657
Cooley, De Witt C., Aurora, and C. H. Parker, Chicago, Ill. Wood-filling compound.....	228,982	June 22	1024	.....	17	1408
Cooley, Earl K., Antioch, Cal. Carpet-lining.....	232,336	Sept. 21	557	154	18	631
Cooley, George W., Chesterton, Ind. Burglar-alarm.....	225,972	Mar. 30	1193	339	17	702
Cooley, Lester D., Friendship, N. Y. Indicator for shoe-boxes.....	229,236	June 29	1294	356	17	1456
Cooley, Martin I., et al. (See Ehrlich, Edward, assignor.)						
Cooley, Martin I., Plainfield, N. J. Corset.....	231,654	Aug. 31	1226	345	18	472
Cooley, Newton C., Corning, Iowa. Game-counter.....	231,406	Aug. 24	935	264	18	419
Cooley, Orville, assignor to Johnston Harvester Company, Brockport, N. Y. Harvester-rake.....	225,971	Mar. 30	1191	339	17	702
Coombs, Joseph C., Campello, Mass. Mechanical telephone.....	230,924	Aug. 10	387	111	18	317
Coombs, Nelson, Titusville, Pa. Steam-heating apparatus.....	234,705	Nov. 23	1106	298	18	1193
Coon, Arthur L. (See Coon, Elijah S., assignor.)						
Coon, Charles, assignor of two-thirds interest to L. B. Adams, Saugerties, and M. A. Dayton, Jr., Milton, N. Y. Repulping paper.....	225,347	Mar. 9	438	.....	17	543
Coon, Elijah S., assignor to A. L. Coon, Watertown, N. Y. Heel skate-fastener.....	233,204	Oct. 12	501	138	18	828
Cooney, Matthew, and W. Swanston, Chicago, Ill. Apparatus for unloading coal, &c., from vessels.....	228,317	June 1	185	52	17	1257
Coop, William L., Providence, R. I. Machine for binding books with wire staples.....	228,874	June 15	889	{ 242 243 }	{ 17 17 }	{ 1330 1330 }
Cooper, Albert. (See Hickok, Cooper, and Brown.)						
Cooper, C., et al. (See Spindler and Fairchild, assignors.)						



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Cooper, C. G., <i>et al.</i> (See Spindler and Fairchild, assignors.)						
Cooper, Charles, <i>et al.</i> (See Yoch, Benhard, assignor.) (Reissue.)						
Cooper, Charles G., <i>et al.</i> (See Yoch, Benhard, assignor.) (Reissue.)						
Cooper, Charles G., Mount Vernon, Ohio. Traction-engine.....	225,050	Mar. 2	91	25	17	471
Cooper, Charles W., Brooklyn, N. Y. Refrigerator-car.....	230,615	Aug. 3	22	6, 7	18	251
Cooper, Edward, <i>et al.</i> (See Faber du Faur, Adolph, assignor.)						
Cooper, George B. F., New Albany, Ind. Tobacco-drying machine.....	223,319	Jan. 6	134	34	17	24
Cooper, George B. F., New Albany, Ind. Spark-arrester.....	225,572	Mar. 16	699	{ 205 206 }	{ 17 }	598
Cooper, John, <i>et al.</i> (See Lamb, Restore B., assignor.)						
Cooper, John W., New Castle, Pa. Check-rein holder for harness.....	226,979	Apr. 27	998	277	17	943
Cooper, John W., New Castle, Pa. Breast-harness.....	228,175	June 1	17	6	17	1229
Cooper, John W., New Castle, Pa. Car-truck.....	232,392	Sept. 21	630	174	18	643
Cooper, Leonard A., and O. F. Bostwick, Atchison, Kans. Combined listing-plow and seed-planter.....	232,689	Sept. 28	978	269	18	708
Cooper, Milton L. (See Cross, Benjamin H., assignor.)						
Cooper, Thomas. (See McCarter and Cooper.)						
Cooper, Thomas C., Indiana, Pa. Churn.....	233,985	Nov. 2	191	50	18	1018
Cooper, William S., Philadelphia, Pa. Stop and check valve.....	232,941	Oct. 5	173	46	18	766
Cooper, William S., Philadelphia, Pa. Faucet.....	232,942	Oct. 5	174	46	18	767
Coover, Samuel H., Mechanicsburg, Pa. Fly-net for horses.....	235,212	Dec. 7	187	51	18	1312
Copcutt, John, Yonkers, N. Y. Fire-proof floor.....	226,282	Apr. 6	152	43	17	773
Cope, Ezra, Hamilton, and J. R. Maxwell, Cincinnati, Ohio. Steam-engine.....	226,600	Apr. 20	548	153	17	860
Cope, Ezra, Hamilton, and J. R. Maxwell, Cincinnati, Ohio. Steam pumping-engine.....	226,837	Apr. 27	823	{ 229 230 }	{ 17 }	916
Copeland Boot Treeing Machine Company. (See Copeland and Crisp, assignors.)						
Copeland Boot Treeing Machine Company. (See Crisp and Copeland, assignors.)						
Copeland Boot Treeing Machine Company. (See Crisp, Joseph E., assignor.)						
Copeland Boot Treeing Machine Company. (See Grandy, Edward F., assignor.)						
Copeland, Franklin, Boston, Mass. Emery-cloth.....	224,078	Feb. 3	128		17	224
Copeland, George W. (See Ethridge, Martin V. B., assignor.) (Reissue.)						
Copeland, George W., <i>et al.</i> (See Brock and Woodward, assignors.)						
Copeland, George W. (See Crisp and Copeland.)						
Copeland, George W. (See Crisp, Joseph E., assignor.) (Reissue.)						
Copeland, George W., trustee. (See Crisp, Joseph E., assignor.) (Reissue.)						
Copeland, George W., trustee. (See Woodward, Erastus, assignor.)						
Copeland, George W., Malden, E. Woodward and M. Brock, Boston, Mass., assignors to Copeland Lasting Machine Company, Hartford, Conn. Lasting the uppers of boots and shoes.....	224,516	Feb. 17	629	182	17	337
Copeland, George W., Malden, and J. E. Crisp, Boston, Mass., assignors to Copeland Boot Treeing Machine Company, Hartford, Conn. Boot-treering machine.....	234,658	Nov. 23	1050	283	18	1185
Copeland, George W., Malden, and M. Brock, Boston, Mass., assignors to Copeland Lasting Machine Company, Hartford, Conn. Tacking-machine.....	234,854	Nov. 30	1296	349	18	1231
Copeland, Henry C. (See Farr, Hiram G., assignor.)						
Copeland, John, Quasqueton, Iowa. Churn.....	230,405	July 27	1091	307	18	200
Copeland, John A., McMinnville, Tenn. Horse-detaching device.....	230,241	July 20	859	243	18	156
Copeland Lasting Machine Company. (See Copeland and Brock, assignors.)						
Copeland Lasting Machine Company. (See Copeland, Woodward, and Brock, assignors.)						
Copeland Lasting Machine Company. (See Woodward and Brock, assignors.)						
Copeland, Samuel R., assignor to himself, J. A. Littler, and C. Lamb, Armstrong, Ill. Hame-tug.....	227,490	May 11	468	134	17	1066
Copp, John L., Rochester, N. H. Stock-car.....	224,652	Feb. 17	790	223	17	363
Coram, Joseph A., <i>et al.</i> (See Ingalls, Charles L., assignor.)						
Corban, Jeremiah S., Plainville, Conn. Carriage-spring.....	231,278	Aug. 17	798	223	18	389
Corbin, P. & F. (See Sparks, William E., assignor.)						
Core, Elijah B., Lincoln, Ill. Apparatus for retouching negatives.....	232,115	Sept. 14	287	81	18	579
Corey, John G., Santa Paula, assignor of one-half interest to N. W. Spaulding, San Francisco, Cal. Animal-shears.....	229,872	July 13	429	118	18	80
Corey, William. (See Aiken, Walter, assignor.) (Reissue.)						
Corey, William W. (See Sprague, Silas S., assignor.)						
Coriell, Lewis C., and J. Adams, Marshall, Mich. Windmill.....	234,392	Nov. 16	708	191	18	1121
Corliss, George H., Providence, R. I. Pump.....	235,742	Dec. 21	839	235	18	1436
Corliss, George H., Providence, R. I. Pump.....	235,743	Dec. 21	841	235	18	1436
Corliss, George H., Providence, R. I. Valve-gear for steam-engines.....	235,744	Dec. 21	842	235	18	1436
Corliss, George H., Providence, R. I. Framing of beam steam-engines.....	235,745	Dec. 21	843	{ 235 236 }	{ 18 }	1436
Corliss, George H., Providence, R. I. Condenser and feed-heater.....	235,746	Dec. 21	845	236	18	1437
Corliss, George H., Providence, R. I. Valve-seat for pumps.....	235,747	Dec. 21	846	236	18	1437
Cornack, George H. (See McLeod and Cornack.)						
Cornelius, E. G., <i>et al.</i> (See Wittenberg, Charles, assignor.)						
Cornell, George B., Chicago, Ill. Bung-bush.....	228,731	June 15	710	195	17	1356
Cornell, Harmon W., Owego, N. Y. Corn-sheller.....	233,733	Oct. 26	1167	324	18	956
Cornell, John W., Toulon, Ill., assignor of one-half interest to H. F. and C. S. Blood. Check-rowing attachment for corn-planters.....	223,887	Jan. 27	835	222	17	172
Cornell, Jonathan, Sandy Hill, N. Y. Paper-pulp washer.....	235,213	Dec. 7	188	51	18	1312
Cornell, Mahlon B., Philadelphia, Pa. Framing-square.....	223,709	Jan. 20	610	163	17	126
Cornell, Oliver H. P. (See La Dow, John, assignor.)						
Cornely, Emil, Washington, D. C. Embroidering-machine.....	228,445	June 8	335	92	17	1290
Cornfield, Solomon, Chicago, Ill. Needle cylinder or bed of knitting-machines.....	223,710	Jan. 20	611	163	17	126
Corning, Arthur M. (See Horne and Corning.)						
Cornish, Oscar S., and D. W. Curtis, Fort Atkinson, Wis. Butter-worker.....	234,459	Nov. 16	789	212	18	1135
Cornwall, Aaron W. (See Cornwall, William, Sr., W., Jr. and A. W.)						
Cornwall, Horace. (See Hammond, Henry, assignor.)						
Cornwall, John B., Moline, Ill. Cockle-screen.....	232,242	Sept. 14	442	121	18	605
Cornwall, William, Sr., W., Jr., and A. W., Louisville, Ky. Machine for mixing materials for making soap.....	228,319	June 1	187	52	17	1257
Cornwall, William, Sr., W., Jr., and A. W., Louisville, Ky. Apparatus for mixing soap and other materials.....	228,320	June 1	188	53	17	1257
Cornwall, William, Jr., and A. W., Louisville, Ky. Process and apparatus for remelting soap.....	228,321	June 1	189	53	17	1257
Corr, Columbus W., assignor to J. H. Campbell, Carlinville, Ill. Cartridge capping and uncapping implement.....	227,349	May 11	312	90	17	1040
Corr, Columbus W., assignor to J. H. Campbell, Carlinville, Ill. Cartridge-loader.....	229,523	July 6	15	4	18	10
Corr, Thomas J., assignor to O. O. Hefner, Hoopeston, Ill. Upholstering-spring.....	232,462	Sept. 21	717	199	18	657

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Corser, Brackett G., assignor of one-half interest to L. C. Shear, St. Johnsbury, Vt. Com- bined rule and scale.....	229,962	July 13	525	{ 145 146 }	{ 18 17 }	95 224
Corser, George A., Leicester, Mass. Bed-plate for paper-rag engines.....	224,079	Feb. 3	129	36	17	224
Cort, Frank B., Holyoke, Mass. Gaff-topsail rigging.....	234,755	Nov. 23	1164	314	18	1203
Cortrite, Henry. (See Lyons, Hugh, assignor.)						
Corvaja, Paolo, Palermo, Sicily, Italy. Ballasting ships in port.....	225,800	Mar. 23	980	282	17	654
Coryell, Edwin M., assignor to T. Forknall, Brooklyn, N. Y. Oscillating printing-press.....	229,675	July 6	185	52	18	36
Cosand, Alice, Kokomo, Ind. Curtain-fixture.....	231,279	Aug. 17	799	224	18	390
Cosby, Richard M., Indianapolis, Ind. Car-truck.....	231,011	Aug. 10	481	137	18	331
Cosper, William H., Chicago, Ill. Weather-strip.....	231,151	Aug. 17	645	183	18	365
Coté, Louis, St. Hyacinthe, Quebec, Canada. Machine for shaping counter-stiffeners.....	223,436	Jan. 13	283	75	17	64
Cottle, Freeman N., Chelsea, Mass. Door-gong and alarm.....	231,152	Aug. 17	646	183	18	365
Cotton, John E., Fairfield, Me. Lawn-settee.....	233,732	Oct. 26	1166	324	18	956
Cotton Powder Company. (See Faure and Trench, assignors.)						
Cottrell, Calvort B., Westerly, R. I. Sheet-delivery mechanism for printing-machines.....	232,006	Sept. 7	160	41	18	550
Cottrell, Herbert, Newark, N. J. Vapor and other engines.....	230,921	Aug. 10	384	111	18	317
Cottrell, Jesse D., Central Falls, R. I. Let-off mechanism for looms.....	225,348	Mar. 9	439	127	17	543
Cottrell, Jesse D., Central Falls, R. I. Let-off mechanism for looms.....	233,077	Oct. 12	346	95	18	802
Couchond, Louis M., Marseilles, France. Egg-boiler.....	235,998	Dec. 28	1167	324	18	1499
Coughlin, James T., and A. P. Schneider, New York, N. Y. Construction of boats.....	228,040	May 25	1116	318	17	1190
Coulter, Thomas J., Elizabeth, N. J., assignor to himself and E. A. Housman, Danbury, Conn. Sculling-propeller for boats.....	227,491	May 11	469	135	17	1066
Coulter, Thomas J., Wilton, assignor to himself and E. A. Housman, Danbury, Conn. Vi- brating propeller for boats.....	233,209	Oct. 12	506	140	18	829
Coulter, William B., Bristol, Conn. Lantern-holder.....	235,129	Dec. 7	78	24, 25	18	1294
Council, John P., Council's Station, N. C. Tool for hand-sewing.....	229,100	June 22	1150	314	17	1427
Coupe, William, South Attleborough, Mass. Process of and machinery for softening hides and skins.....	234,248	Nov. 9	516	142	18	1081
Course, Josiah. (See Smith and Course.)						
Courtenay, William, New York, N. Y. Screw-nut.....	234,967	Nov. 30	1435	386	18	1253
Contright, Silas, Hooker's Station, assignor to himself and F. Bookwalter, Lancaster, Ohio. Tug attachment.....	227,738	May 18	761	214	17	1122
Cousins, Henry. (See Williams, George W., Sr., assignor.)						
Contant, John A. (See Meigher, James D., assignor.)						
Covell, Edgar C., and W. F. Chase, Laconia, N. H. Adjustable dial for watches.....	227,415	May 11	380	112	17	1051
Covell, William W., assignor to F. I. Marey, Providence, R. I. Button.....	231,541	Aug. 24	1085	304	18	442
Covenry, Millis, Jr., and M. Wilks, Manchester, England. Apparatus for supplying hydrocarbons to metallurgic furnaces.....	230,748	Aug. 3	174	51	18	275
Covert, Drake. (See Henderson, Fulton, assignor.)						
Covert, Enoch, Farmer Village, N. Y. Thill-adjuster.....	226,039	Mar. 30	1276	359	17	715
Covert, Enoch and J. C., Farmer Village, N. Y. Neck-yoke leather.....	231,012	Aug. 10	484	137	18	332
Covert, Henry W., assignor to Marvin Safe and Scale Company, New York, N. Y. Perm- utation-lock.....	233,922	Nov. 2	107	29	18	1004
Covert, Isaac C., Franklin, Ind. Ditching-machine.....	232,631	Sept. 28	910	250	18	697
Covert, James C. (See Covert, Enoch and J. C.)						
Covert, James C., Troy, N. Y. Hitching-strap.....	228,322	June 1	189	53	17	1258
Covey, Amaziah and S. J., Sigourney, Iowa. Steam-engine.....	227,739	May 18	762	215	17	1122
Covey, Samuel J. (See Covey, Amaziah and S. J.)						
Cowan, Norman, assignor of one-half interest to W. F. Austin, Pulaski, N. Y. Machine for making wood pulp.....	228,041	May 25	1117	318	17	1190
Cowan, William B., Guelph, Ontario, Canada. Game apparatus.....	224,882	Feb. 24	1075	368	17	425
Cowburn, Thomas, assignor of one-half interest to J. Heastie, Gloucester, England. Heel- ing-machine for boots and shoes.....	230,242	July 20	861	{ 244 245 246 }	{ 18 18 18 }	157
Cowden, Matthew B., Harrisburg, Pa. Automatic sewer-trap.....	227,614	May 18	612	176	17	1100
Cowell, Hiram, Zanesville, Ohio. Furnace for steam-boilers.....	223,635	Jan. 20	529	142	17	114
Cowell, Rensselaer A., Cleveland, Ohio. Car-platform.....	231,407	Aug. 24	937	265	18	420
Cowen, Robert, Cambridgeport, Mass. Manufacture of rubber-lined hose.....	226,038	Mar. 30	1275	359	17	715
Cowgill, Christian D., Terre Haute, Ind. Elevator-bucket.....	228,875	June 15	891	243	17	1381
Cowling, Jerry, Richmond, Ind. Steam-boiler.....	226,443	Apr. 13	346	99	17	817
Cowing, Albert A., Watkins, N. Y. Jeweler's clamp.....	223,711	Jan. 20	612	164	17	126
Cowles, Edward, Fishkill, N. Y. Detachable discharge-stopper and connection for milk and other vessels.....	226,838	Apr. 27	825	230	17	916
Cowles, Edward P., Wequiock, Wis. Car-truck.....	233,989	Nov. 2	195	51	18	1019
Cowles, James A., Chicago, Ill. Rock-drill.....	230,863	Aug. 10	321	95	18	308
Cowper, Edward A. (See McCrea and Cowper.)						
Cox, Achsah, et al. (See Owen, William S., assignor.)						
Cox, Allan, Boston, Mass. Sheet-metal pan.....	224,396	Feb. 10	489	140	17	303
Cox, Allan, Boston, Mass. Sheet-metal pan. (Reissue).....	9,250	June 15	993	270	17	1395
Cox, Allan, Boston, Mass. Device for forming tin pans.....	232,463	Sept. 21	718	199	18	657
Cox, Arthur W., Auburn, Me., assignor of one-half interest to D. M. Mahoney, Bristol, R. I. Boot-tree.....	224,517	Feb. 17	630	182	17	337
Cox, Arthur W., Auburn, Me. Table-knife.....	229,961	July 13	525	145	18	95
Cox, George P. (See Badger, George W., assignor.)						
Cox, Henry F., Altoona, Pa. Switch attachment.....	232,176	Sept. 14	357	100	18	590
Cox, James B., 13 Strand, Torquay, England. Gas-regulator.....	232,943	Oct. 5	175	46	18	767
Cox, James R., Auburn, N. Y. Running cars upon railways.....	228,176	June 1	18	6	17	1230
Cox, Joshua H., assignor to Aultman & Taylor Company, Mansfield, Ohio. Pawl-shifter for traction-engines.....	232,884	Oct. 5	110	29	18	756
Cox, Lewis S. (See Wiggin, John E., assignor.) (Reissue.)						
Cox, Silas W., New York, N. Y. Device for drawing and measuring liquids.....	232,630	Sept. 28	909	250	18	697
Coy, C. H., et al. (See Merrill, George P., assignor.)						
Coy, George W., New Haven, Conn. Switch for telephone-exchanges.....	224,653	Feb. 17	791	224	17	363
Coyle, Charles J., assignor to E. Jennings, A. B. Pullman, and A. Longstreet, Chicago, Ill. Shirt.....	229,807	July 13	352	98	18	68
Coyle, John, Jr., East New York, N. Y. Combined lamp-wick trimmer and burner and chimney cleaner.....	235,999	Dec. 28	1168	324	18	1499
Crabbs, Benjamin F., Washington, D. C. Mill for grinding and reducing.....	229,589	July 6	96	26	18	23
Crabtree, Abraham, Bacon, county of Lancaster, England. Machine for dressing middlings.....	234,968	Nov. 30	1436	386	18	1254
Crabtree, William N., Porterville, Cal. Gun-lock.....	229,383	June 29	1479	407	17	1480
Craft, Josephus, Worthington, Minn. Compound for preserving fruit.....	224,883	Feb. 24	1076	.....	17	425
Cragin Brothers & Chandler. (See Crottsburg, Nicholas, assignor.)						
Cragin Brothers & Chandler. (See Palmer, Deloss, assignor.)						
Craig, James, Peabody, Mass. Machine for stripping fabrics.....	224,656	Feb. 17	795	225	17	364

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Craig, John, Schuyler, Nebr. Tread-mill.....	230,751	Aug. 3	177	52	18	275
Craig, Rufus S., and G. G. Wyman, Dover Plains, N. Y. Spark-arrester.....	225,209	Mar. 9	269	77	17	516
Craig, Rufus S., and G. G. Wyman, Dover Plains, N. Y. Spark-arrester.....	233,400	Oct. 19	766	211	18	880
Craig, Warren H., Lawrence, Mass. Governor for steam-engines.....	226,160	Apr. 6	13	4	17	748
Craig, William, New York, N. Y. Mash-machine.....	223,177	June 1	19	6	17	1230
Craig, William P., New Portage, Ohio. Stock-car.....	233,329	Oct. 19	677	186	18	865
Crail, Henry W. (See Stambaugh and Crail.)						
Crain, Orris S., Shawano, Wis. Feather-renovator.....	230,616	Aug. 3	24	7	18	251
Cramp & Sons Ship and Engine Building Company, William. (See See, Horace, assignor.)						
Crandal, Edward M., Chicago, Ill. Spool for barbed fence-wire.....	226,283	Apr. 6	152	43	17	774
Crandall, Edward M., Chicago, Ill. Shipping-can.....	227,615	May 18	613	176	17	1101
Crandall, George L., Binghamton, N. Y. Carriage-curtain fastener.....	227,219	May 4	156	46	17	1003
Crandall, George L., Binghamton, N. Y. Latch.....	228,323	June 1	190	53	17	1258
Crandall, Benjamin P., deceased, assignor, by mesne assignments, to Providence Tool Company, Providence, R. I. Velocipede. (Reissue.).....	9,096	Feb. 24	1180	338	17	443
Crandall, Francis L., Greenwich, N. Y. Salve.....	227,958	May 25	1031		17	1177
Crandall, George L. (See Acker, Charles W., assignor. (Reissue.)						
Crandall, Hosca B., Brocton, N. Y. Fruit-basket.....	228,248	June 1	104	31	17	1243
Crandall, Jesse A., Brooklyn, N. Y. Blackboard.....	227,492	May 11	470	135	17	1066
Crandall, Jesse A., Brooklyn, N. Y. Stiek-horse.....	230,749	Aug. 3	175	51	18	275
Crandall, Jesse A., Brooklyn, N. Y. Reading-desk.....	230,750	Aug. 3	176	52	18	275
Crandall, Jesse A., Brooklyn, N. Y. Toy molding apparatus.....	232,598	Sept. 28	873	242	18	691
Crandall, Jesse A., Brooklyn, N. Y. Toy molding apparatus.....	232,599	Sept. 28	874	242	18	691
Crane, Amzi A., Oseo, Ill. Artificial spring or bulk-head.....	231,213	Aug. 17	729	{ 204 205 }	18	378
Crane, F. M., et al. (See Hershey, Benjamin, assignor.)						
Crane, Frank M. (See Dudley and Hershey, assignors.)						
Crane, Gerard, Salamanca, N. Y. Oil-still.....	231,280	Aug. 17	800	224	18	390
Crane, Moses G. (See Rogers and Crane.)						
Crane, Moses G., Newton, and E. Rogers, Brookline, Mass. Non-interfering fire-alarm signal-box.....	223,218	Jan. 6	10	3	17	4
Crane, Thomas, Fort Atkinson, Wis. assignor to himself and M. A. Jones. Sewing-machine. (Reissue.).....	9,208	May 18	919	{ 262 263 }	17	1149
Crane, Thomas, assignor of one-half interest to L. S. Kellogg, Fort Atkinson, Wis. Door-spring.....	233,837	Nov. 2	12	4	18	988
Crane, Walter E., Alma City, Minn. Steam-engine governor.....	233,734	Oct. 26	1168	325	18	956
Crane, William E., Waterbury, Conn. Governor.....	225,573	Mar. 16	700	206	17	598
Crane, William J., assignor to C. W. Barker, Pottsville, Pa. Automatic key-board attachment for musical instruments.....	224,152	Feb. 3	204	59	17	237
Crane, Thomas, Bay City, Mich. Saw-mill dog.....	223,997	Feb. 3	26	9	17	207
Cranston Center Fire Cartridge Company. (See Cranston, James F., assignor.) (Reissue.)						
Cranston, James F., assignor, by mesne assignments, to Cranston Center Fire Cartridge Company, Norwich, Conn. Priming metallic cartridges. (Reissue.).....	9,453	Nov. 9	679	184	18	1108
Cranston, John G., Newcastle-upon-Tyne, England. Rock-drill.....	223,888	Jan. 27	836	223	17	173
Cravens, Elijah, Osage Mission, Kans. Car-coupling.....	232,464	Sept. 21	719	200	18	637
Crawford, A. Herbert, Liverpool, N. Y. Running-gear for vehicles.....	227,151	May 4	78	21	17	990
Crawford, A. Herbert, Liverpool, N. Y. Running-gear for vehicles.....	229,237	June 29	1295	356	17	1456
Crawford, Amos H., Liverpool, N. Y. Stable.....	227,150	May 4	77	21	17	990
Crawford, C. J. (See Rowley, William H., assignor.)						
Crawford, James G., Boston, Mass. Washing-machine.....	234,393	Nov. 16	708	191	18	1121
Crawford, James G., Boston, Mass. Washing-machine.....	235,073	Dec. 7	15	4	18	1283
Crawford, John, Philadelphia, Pa. Check-register.....	225,920	Mar. 30	1120	320	17	691
Crawford, William T., et al. (See Barkley, James, assignor.)						
Creager, Frank A. W., Waco, Tex. Chair.....	233,478	Oct. 19	855	236	18	894
Creager, Jonathan. (See Pieper and Creager.)						
Creager, Jonathan, and A. Evans, assignors of one-third interest to W. Pieper, Cincinnati, Ohio. Vapor-condensing and air-warming apparatus.....	231,766	Aug. 31	1353	381	18	491
Creahan, John, Philadelphia, Pa. Billiard and other cues.....	233,325	Oct. 19	674	185	18	865
Creamer, William G., Brooklyn, N. Y. Basket-rack for railway-cars. (Reissue.).....	9,238	June 8	681	187	17	1342
Cregier, Dewitt C., Chicago, Ill. Air-nozzle for steam-boiler furnaces.....	223,841	Jan. 27	774	207	17	163
Crikelaar, Gustave J., assignor to R. A. Chesebrough, New York, N. Y. Hatchway fire attachment.....	234,969	Nov. 30	1437	387	18	1254
Cripe, John, Jr., et al. (See McClintock, William A., assignor.)						
Crippen, Paul, Bronson, Mich. Water-proof compound.....	229,963	July 13	527		18	95
Crippen, Warren S. (See Osterhout, Abram, assignor.)						
Crisp, Joseph E. (See Copeland and Crisp.)						
Crisp, Joseph E., Boston, assignor to G. W. Copeland, trustee, Malden, Mass. Boot-treering machine. (Reissue.).....	9,055	Jan. 20	715	{ 192 193 }	17	144
Crisp, Joseph E., Boston, assignor to G. W. Copeland, Malden, Mass. Boot-treering machine. (Reissue.).....	9,124	Mar. 23	1091	312	17	673
Crisp, Joseph E., Boston, Mass., assignor to Copeland Boot Treering Machine Company, Hartford, Conn. Tool for boot-treering machines.....	230,406	July 27	1092	{ 307 308 }	18	200
Crisp, Joseph E., Boston, and G. W. Copeland, Malden, Mass., assignors to Copeland Boot Treering Machine Company. Boot-treering machine.....	230,752	Aug. 3	178	52	18	275
Crisp, Joseph E., Boston, and G. W. Copeland, Malden, Mass. Boot-treering machine.....	232,944	Oct. 5	176	47	18	767
Crisp, Joseph E., Boston, Mass., assignor to Copeland Boot Treering Machine Company, Hartford, Conn. Boot-treering machine.....	233,210	Oct. 12	507	140	18	829
Crisp, Joseph E., Boston, Mass. Safety-valve.....	235,748	Dec. 21	847	{ 236 237 }	18	1437
Crites, Jonah, Orrville, Ohio. Gate.....	234,249	Nov. 9	519	143	18	1082
Crocker, Elhanan H., Sandy Hill, N. Y. Device for converting motion.....	231,955	Sept. 7	99	24	18	539
Crocker, Frank B. (See Curtis and Crocker.)						
Crocker, Frederick, Sr., Olean, N. Y., assignor of one-half interest to C. D. Robbins, Titusville, Pa. Device for lubricating journals in machinery.....	226,840	Apr. 27	827	230	17	916
Crocker, James A., assignor to H. C. Barnes, Boston, Mass. Portable folding music-stand.....	227,152	May 4	79	21	17	990
Crocker, James A., Boston, Mass. Twine-cutter.....	228,516	June 8	428	116	17	1303
Crocker, James A., Boston, Mass. Automatically-reversing filter.....	228,986	June 22	1037	280	17	1409
Crocker, James A., Boston, Mass. Reversible filter.....	229,384	June 29	1420	407	17	1480
Crockett, John F., Laconia, N. H., and C. Barrett, Somerville, Mass. Car-axle box.....	234,997	Mar. 2	17	5	17	459
Crockford, Alfred H., Newark, N. J. Bit-brace.....	223,484	Jan. 13	344	92	17	73
Croft, Henry, Sr., and Henry, Jr., Springfield, Ohio. Wind-wheel.....	224,817	Feb. 24	1004	284	17	414
Croft, Silas C. (See Peterson, Adolphus, assignor.)						
Croft, Silas C. (See Peterson, Adolphus, assignor.) (Reissue.)						
Crocker, Henry, et al. (See Williams, John D., assignor.)						
Crollard, Jules, Leadville, Colo. Car-brake.....	235,749	Dec. 21	849	237	18	1437

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Cromm, William. (See Truxal, William, assignor.)						
Crompton, George. (See Duckworth, John C., assignor.) (Reissue.)						
Crompton, George, Worcester, Mass. Loom.	223,998	Feb. 3	27	9, 10	17	207
Crompton, George, and H. Wyman, Worcester, Mass., assignors to said Crompton. Shuttle-box mechanism for looms.	229,967	July 13	531	147	18	96
Crompton, George, and H. Wyman, Worcester, Mass., assignors to said Crompton. Shuttle-box mechanism for looms.	229,968	July 13	532	148	18	96
Crompton, George, and H. Wyman, Worcester, Mass. Shuttle-box motion for looms.	229,969	July 13	533	148	18	97
Crompton, George, and H. Wyman, Worcester, Mass., assignors to said Crompton. Loom.	230,243	July 20	866	246 247 248	18	157
Crompton, George, and H. Wyman, Worcester, Mass., assignors to said Crompton. Shuttle-box mechanism for looms.	231,153	Aug. 17	647	183	18	365
Cron, Archibald, Brantford, Ontario, Canada. Car-coupling.	233,330	Oct. 19	679	187	18	865
Cronk, Jasper T., Hoboken, N. J. Clothes-line fastener.	224,657	Feb. 17	797	225	17	365
Cronkright, William. (See Wygant, John H., assignor.)						
Crook, Charles, Newton, N. J. Hose-jacket.	224,397	Feb. 10	489	141	17	303
Crooke, Henry S. and L., New York, N. Y. Manufacture of metallic foil.	227,495	May 11	472		17	1066
Crooke, Henry S. and L., New York, N. Y. Manufacture of metallic foil.	227,496	May 11	473		17	1067
Crooke, Henry S., New York, N. Y. Rolled-foil wrapper.	229,676	July 6	186		18	36
Crooke, Henry S. and L., New York, N. Y. Making ornamental metallic foil.	229,677	July 6	187	52	18	36
Crooke, Henry S., New York, N. Y. Envelope.	233,923	Nov. 2	108	29	18	1005
Crooke, Lewis. (See Crooke, Henry S. and L.)						
Crooker, William W., assignor of one-half interest to J. W. Brimblecom, Lynn, Mass. Polishing-wheel for boot and shoe soles.	233,211	Oct. 12	507	141	18	829
Crosby, George H., Somerville, Mass. Safety-valve and muffler.	225,801	Mar. 23	982	282	17	654
Crosby, George H., Somerville, Mass. Steam-engine recorder.	228,179	June 1	21	7	17	1230
Crosby, Hezekiah H., administrator. (See Crosby, John Q.)						
Crosby, James B. (See Cobb, Samuel C., assignor.)						
Crosby, James B. (See Strunk, Daniel, assignor.)						
Crosby, John Q. (H. H. Crosby, administrator.) Yonkers, N. Y. Hose-reel.	233,990	Nov. 2	196	51	18	1018
Crosby, Mark, Wakefield, Mass. Wardrobe-bedstead.	232,805	Oct. 5	9	3	18	740
Crosby, Mark, Wakefield, Mass. Wardrobe-bedstead.	233,991	Nov. 2	197	51, 52	18	1019
Crosby, Nathan, et al. (See Ingalls, Charles L., assignor.)						
Cross, Alonzo T., Providence, R. I. Stylographic fountain-pen.	225,691	Mar. 23	850	247	17	633
Cross, Alonzo T., Providence, R. I. Stylographic fountain-pen.	227,416	May 11	381	112	17	1051
Cross, Alonzo T., Providence, R. I. Fountain-pen.	229,305	June 29	1384	380	17	1468
Cross, Alonzo T., Providence, R. I. Stylographic pen.	232,804	Oct. 5	8	3	18	740
Cross, Benjamin H., assignor to M. L. Cooper, Fort Valley, Ga. Harness-buckle.	234,394	Nov. 16	709	191	18	1121
Cross, Christopher G., assignor to L. Sass, Chicago, Ill. Device for weighing fluids.	233,999	Feb. 3	31	10	17	208
Cross, Christopher G., Chicago, assignor to Williams, White & Co., Moline, Ill. Drop-hammer lifter.	228,324	June 1	191	54	17	1258
Cross, Christopher G., Chicago, Ill. Removing snow from railway-tracks.	231,902	Sept. 7	29	6	18	529
Cross, David L., Austin, Tex. Rotary engine.	231,281	Aug. 17	801	224	18	390
Cross, Edwin M., Syracuse, N. Y. Emery-wheel.	235,214	Dec. 7	188	51	18	1312
Cross, William. (See Parsons and Cross.)						
Cross, William C., Boston, Mass. Paper-bag machine.	225,509	Mar. 16	630	184	17	585
Cross, William C., Boston, Mass. Sewing-machine needle.	228,446	June 8	336	93	17	1291
Cross, William C., Boston, Mass. Paper-bag machine.	229,970	July 13	534	148	18	97
Cross, William C., Boston, Mass. Paper-bag machine.	232,945	Oct. 5	180	48	18	768
Cross, William C., Boston, Mass. Paper-bag machine.	232,946	Oct. 5	182	49	18	768
Cross, William C., Boston, Mass. Paper-bag machine.	232,947	Oct. 5	184	49	18	768
Crossley, Harry A., Cleveland, Ohio. Stave-jointer. (Reissue.)	9,441	Nov. 2	344	95	18	1044
Crossley, James W., and A. A. Hagen, New York, N. Y., assignors to said Crossley. Tobacco-cutting machine.	227,959	May 25	1031	294	17	1177
Crossley, James W., New York, N. Y. Tobacco-cutting machine.	232,337	Sept. 21	558	154	18	631
Crossley, Louis J., Halifax, England. Microphone.	233,660	Oct. 26	1089	303	18	943
Crossman, Montgomery, assignor of one-half interest to H. A. Holmes, Grand Haven, Mich. Windmill.	227,492	May 11	471	135	17	1066
Crotsenburg, Nicholas, Janesville, Wis., assignor of one-half to Cragin Brothers & Chandler, Chicago, Ill. Wick-tube for lamp and stove burners.	234,706	Nov. 23	1108	298	18	1193
Crôte, Joanny, Macon, France. Machine for cutting cloth and other fabrics.	227,494	May 11	471	135 136	17	1066
Crotty, John S., New York, N. Y. Folding-guide for corset parts.	235,671	Dec. 21	755	214	18	1422
Crouch, George, New York, N. Y. Trunk-lock.	235,130	Dec. 7	79	25	18	1295
Crowder, John R., Gainesville, and J. T. Haile, Whitesborough, Tex. Post-office case.	233,992	Nov. 2	198	52	18	1020
Crowe, Willis, and T. R. Hester, Napa, Cal. Ballot-box.	229,965	July 13	528	146 147	18	96
Crowell, Abner B., and A. Talbott, Richmond, Va. Millstone-driver.	224,884	Feb. 24	1076	308	17	426
Crowell, Edwin L. (See Pressey, George W., assignor.)						
Crowell, John H., Providence, R. I. Heddle for looms.	226,903	Apr. 27	905	252	17	929
Crowell, John H., Providence, R. I. Separable button.	228,984	June 22	1026	279	17	1460
Crowell, Luther C., Boston, Mass., assignor to R. Hoe & Co., New York, N. Y. Supplement-introducing mechanism for printing-machines.	235,746	Mar. 23	900	264 265 266	17	643
Crowell, Luther C., Brooklyn, N. Y. Sheet-delivery apparatus for printing-machines.	233,993	Nov. 2	199	52 53 54	18	1020
Crowell, Luther C., Brooklyn, N. Y. Folding-machine.	233,994	Nov. 2	205	54, 55 55 56	18	1020
Crowell, Luther C., Brooklyn, N. Y. Folding-machine.	233,995	Nov. 2	210	57 58	18	1021
Crowell, Luther C., Brooklyn, N. Y. Folding-machine.	233,996	Nov. 2	215	58	18	1021
Crowell, Luther C., Brooklyn, N. Y. Folding-machine.	233,997	Nov. 2	218	59	18	1022
Crowell, M. E., et al. (See Wentz, Simon P. and R. J., assignors.)						
Crowell, T. A., et al. (See Wentz, Simon P. and R. J., assignors.)						
Crowell, Thomas A., Boston, Mass. Seed and corn planter.	230,244	July 20	514	248	18	158
Crowley, Francis J., Gloucester City, N. J. Stretching and drying apparatus for calico-printing machines.	234,541	Nov. 16	882	235	18	1150
Crowley, George G., assignor to F. Brammer, Little Falls, N. Y. Wheel-harrow.	226,829	Apr. 27	826	220	17	916
Crowley, George G. (See Brammer and Crowley.)						
Crowley, Roy O. (See Boyd and Crowley.)						
Crowley, William J., Fall River, Mass. Last.	222,178	June 1	20	6	17	1230



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Crowson, William L., St. Louis, Mo. Cotton-gin feeder.....	235,414	Dec. 14	435	{ 122 123 }	18	1362
Cruess, William V., San Marcos, Cal. Animal-shears.....	234,250	Nov. 9	520	143	18	1082
Crump, Samuel, Mont Clair, N. J. Locking plates to beds of printing-machines.....	224,658	Feb. 17	797	225	17	365
Crump, Samuel, Mont Clair, N. J. Making colored labels.....	227,960	May 25	1032	.....	17	1177
Crump, Samuel, Mont Clair, N. J. Multiple-color printing-press.....	228,517	June 8	428	117	17	1303
Cruiser, W. C. (See Doolittle, George W., assignor.)						
Crutchett, James, Washington, D. C. Compound burner for lamps.....	231,013	Aug. 10	484	137	18	332
Crutchley, Frederick, assignor to C. Pryse, Birmingham, England. Safety-lock for fire-arms.....	231,542	Aug. 24	1086	305	18	442
Crystal Burial Case Company. (See Orr, William M., assignor.)						
Crystal Burial Case Company. (See Reese and Zell, assignors.)						
Crystal Burial Case Company. (See Taylor, Joseph, assignor.)						
Cubbage, John W., Gallipolis, Ohio. Leather scouring and wringing machine.....	235,131	Dec. 7	80	25	18	1295
Cudd, Decatur P., Concrete, Tex. Earth-auger.....	226,444	Apr. 13	346	99	17	817
Cudworth, John G. (See Buell and Cudworth.)						
Culbertson, William, Moorefield, assignor of one-half interest to W. L. Fisk, Vevay, Ind. End-gate.....	225,803	Mar. 23	984	282	17	655
Culbertson, William C., Girard, Pa. Fence-post.....	226,284	Apr. 6	153	44	17	774
Cullingworth, George R., et al. (See Moore, Charles, assignor.)						
Cullmann, Carl P., Idar, and C. A. Lorenz, Oberstein, Germany. Fabrication of onyx from agate.....	230,753	Aug. 3	181	.....	18	276
Culmer, John W., Allegheny, assignor to Culmer Manufacturing Company, Oil City, Pa. Hydrocarbon-burner.....	233,212	Oct. 12	508	{ 141 142 }	18	829
Culmer Manufacturing Company. (See Culmer, John W., assignor.)						
Culver, Benjamin F., Derby, Conn. Molasses-pitcher.....	224,080	Feb. 3	130	37	17	224
Culver, Benjamin F., Derby, Conn. Caster.....	224,518	Feb. 17	631	182	17	337
Culver, Eber, Williamsport, Pa. Sawing-machine.....	226,904	Apr. 27	906	{ 252 253 }	17	929
Culver, George T., New Haven, Conn. Tool-handle.....	233,479	Oct. 19	856	236	18	894
Culver, Joseph E., Jersey City, N. J. Generator and motor.....	226,040	Mar. 30	1277	260	17	715
Culver, Joseph E., Jersey City, N. J. Steam-boiler and furnace.....	233,735	Oct. 26	1169	325	18	956
Culver, Seneca. (See Metcalf, George, assignor.)						
Cuming, Mari A., New York, N. Y. Hat-press.....	226,041	Mar. 30	1279	360	17	715
Cummings, Albert G., Harrisburg, Pa., assignor to Pennsylvania Steel Company. Interlocking switch and signal apparatus.....	226,499	Apr. 13	408	{ 116 117 118 }	17	827
Cummings, Amos, and J. H. Harrison, Boston, Mass. Fire-escape ladder.....	233,998	Nov. 2	221	59	18	1022
Cummings, Charles, assignor of one-half to N. M. Bell, Virginia City, Nev. Electrical signal.....	235,132	Dec. 7	83	26	18	1295
Cummings, Francis M., Porterville, N. Y. Cheese-curd sifter and picker.....	234,543	Nov. 16	884	236	18	1151
Cummings, Henry T., Portland, Me. Treating and curing Spanish moss.....	224,000	Feb. 3	32	.....	17	208
Cummings, Matthew L., Philadelphia, Pa. Lock-hinge.....	226,042	Mar. 30	1279	360	17	715
Cummings, Uriah, Buffalo, N. Y. Furnace.....	232,690	Sept. 28	979	270	18	708
Cummins, Andrew L. (See Henry, Thomas C., assignor.)						
Cummins, James, California, Mo. Barrel-swing.....	229,306	June 29	1386	380	17	1468
Cummins, William G. (See Fuston and Cummins.)						
Cummins, William G., McMinnville, Tenn. Horse-detacher.....	227,740	May 18	763	215	17	1122
Cumcock, James W., Chicopee, Mass. Yarn-fastener for bobbins of spinning-frames.....	223,801	Jan. 27	727	196	17	156
Cunningham, Sarah A., New York, N. Y. Abdominal corset.....	225,211	Mar. 9	271	78	17	516
Cunningham, Albert, Milwaukee, Wis. Clapboard-machine.....	230,110	July 20	711	{ 198 199 }	18	134
Cunningham, Albert, Milwaukee, Wis. Clapboard-machine.....	230,111	July 20	712	199	18	134
Cunningham, Albert, Milwaukee, Wis. Clapboard-machine.....	230,112	July 20	713	199	18	134
Cunningham, Herman E., et al. (See Stamour, John B., assignor.)						
Cunningham, John, Drifton, (Jeddo P. O.) Pa. Combined fence-post and gate-hinge.....	229,385	June 29	1481	407	17	1480
Cunningham, John A., Sacramento, Cal. Steam-boiler.....	229,966	July 13	530	147	18	96
Cunningham, Martin J., and J. P. Bailey, Springfield, Mo. Hedge-trimmer.....	232,485	Jan. 13	345	92	17	74
Cunningham, Martin J., and J. P. Bailey, Springfield, Mo. Hedge-trimmer.....	231,282	Aug. 17	801	225	18	390
Cunningham, Patrick, New Bedford, Mass. Machine for mincing whale-blubber.....	232,691	Sept. 28	980	270	18	709
Cunningham, Robert, Brooklyn, N. Y. Ornamenting smooth surfaces of glass, wood, rubber, &c.....	225,802	Mar. 23	983	.....	17	654
Cunningham, Robert, New York, N. Y. Manufacturing articles in imitation of papier-maché.....	226,497	Apr. 13	407	116	17	826
Cunningham, Thomas, et al. (See Stamour, John B., assignor.)						
Cunninghams & Co. (See Hirt, Wilhelm, assignor.)						
Cunnington, William, Rockport, Mo. Tooth-extractor.....	225,110	Mar. 2	152	44	17	432
Curd, Joseph E., Charleston, Ill. Device for splicing traces.....	226,496	Apr. 13	406	115	17	826
Curl, Edward L., Anoka, Minn. Toy.....	231,408	Aug. 24	938	265	18	420
Curie, Frederick C., Lykens, Pa. Noise-quieting nozzle.....	226,905	Apr. 27	908	253	17	929
Curran, John J., et al. (See Sumner, Eli J., assignor.) (Reissue.)						
Curran, Walter C., Ithaca, N. Y. Sash-holder.....	230,113	July 20	714	200	18	135
Currie, Daniel M., St. Louis, Mo. Permeable dam, dyke, &c.....	224,398	Feb. 10	490	141	17	303
Currier, Charles. (See Currier, William and C.)						
Currier, Henry A., Almont, Mich. Jointer for plows.....	234,251	Nov. 9	520	143	18	1082
Currier, John W. (See Sartwell, William E., assignor.)						
Currier, Leonard F., Salisbury, Mass. Top-prop block.....	230,618	Aug. 3	25	7	18	251
Currier, Osceola, assignor, by mesne assignment, to W. C. Boylan, Newark, N. J. Ore-separator.....	233,661	Oct. 26	1090	303	18	943
Currier, William and C., Oskaloosa, Iowa. Wheat scouring and polishing machine.....	235,672	Dec. 21	755	215	18	1422
Curry, Lewis V., Fenton, Mich. Case for displaying shot.....	231,478	Aug. 24	1014	285	18	432
Curry, Marcellus Q., Elizabeth, Pa. Coal-tipple.....	234,116	Nov. 9	361	100	18	1053
Curry, William M., Morning Sun, Ohio. Thill-coupling.....	230,617	Aug. 3	25	7	18	251
Curry, William M., assignor of one-half interest to H. K. Broadberry and W. H. George, Morning Sun, Ohio. Post and wire fence.....	230,925	Aug. 10	388	112	18	317
Curson, Joseph, Lyons, France. Machine for shaving wool or hair from hides.....	234,542	Nov. 16	883	235	18	1150
Curtice, John F., Fort Wayne, Ind. Sad-iron heater and receptacle.....	228,732	June 15	711	195	17	1356
Curtice, John F., Fort Wayne, Ind. Car-brake shoe. (Reissue.)	9,329	Aug. 3	297	84	18	296
Curtis, Augustine B., Birmingham, assignor of one-half interest to A. H. Gilbert, Derby, said Curtis and Gilbert assignors of one-third their interest to I. D. Warner, Bridgeport, Conn. Machine for folding corset parts.....	224,835	Feb. 24	1077	308	17	426
Curtis, Augustine B., assignor of one-half interest to A. H. Gilbert, Birmingham; said Curtis and Gilbert assignors of one-third their interest to I. D. Warner, Bridgeport, Conn. Machine for folding corset parts.....	225,574	Mar. 16	701	206	17	598



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Curtis, Augustine B., assignor of one-half interest to A. H. Gilbert, Derby, Conn. Machine for folding corset parts.	231,901	Sept. 7	23	6	18	529
Curtis, Charles G., and F. B. Crocker, New York, N. Y. Telephone call system.	230,530	July 27	1233	348	18	224
Curtis, David. (See Potter, Albert, assignor.)						
Curtis, David W. (See Cornish and Curtis.)						
Curtis, Dexter, Madison, Wis. Harness-collar pad.	230,926	Aug. 10	339	112	18	318
Curtis, Francis, assignor of three-fourths interest to H. Devens, Brattleborough, Vt. Machine for making machine-screws. (Reissue)	9,086	Feb. 17	922	263 264	17	387
Curtis, George. (See Spoerl and Curtis.)						
Curtis, George H. W., Brooklyn, N. Y., assignor to Wheeler & Wilson Manufacturing Company, Bridgeport, Conn. Overseaming attachment for sewing-machines	228,985	June 22	1026	279 280	17	1409
Curtis, George W., Philadelphia, Pa. Car-coupling.	234,175	Nov. 9	430	116	18	1066
Curtis, Havilah M., J. P. Musser, and N. A. Trowbridge, Minneapolis, Minn. Combined bag-holder and truck	228,733	June 15	712	196	17	1356
Curtis, James M. (See Miller, William J., assignor.)						
Curtis, John, North Dorset, Vt. Steam-engine.	230,245	July 20	875	248 249	18	158
Curtis, John G., Ludlow, Pa. Sectional boiler.	229,964	July 13	527	146	18	95
Curtis, Nelson, Newton Centre, Mass. Safety-valve.	231,214	Aug. 17	730	205	18	378
Curtis, Nelson, Newton, Mass. Automatic boiler-feed.	231,543	Aug. 24	1087	305	18	442
Curtis, Nelson, Newton, Mass. Valve.	233,662	Oct. 26	1091	303	18	943
Curtis, Orville H., Milwaukee, Wis. Catapult.	225,510	Mar. 16	632	184	17	585
Curtis, Thomas V., Lemars, Iowa. Smoker's kit	228,325	June 1	192	54	17	1258
Curtiss, Edwin A. (See Doolittle and Curtiss.)						
Curtiss, Manly J., Camden, Mich. Neck-yoke ring	231,154	Aug. 17	648	183	18	366
Curtiss, Thomas E., Buffalo, N. Y. Fruit-drier.	235,342	Dec. 14	353	97	18	1347
Cushing, Charles H., Tidioute, Pa. Stop-cock.	223,486	Jan. 13	347	92	17	74
Cushing, Charles H., Tidioute, Pa. Stop-cock.	231,283	Aug. 17	802	225	18	390
Cushing, Elbridge G. (See Gray and Cushing.)						
Cushing, George W., Sedalia, Mo. Car-frame	223,437	Jan. 13	286	76	17	64
Cushing, George W., Sedalia, Mo. Car-axle box.	227,220	May 4	157	46	17	1003
Cushing, Nichols B., Jersey City, N. J. Hoisting apparatus for elevators, &c.	232,338	Sept. 21	559	154 155	18	631
Cushman, Francis A. (See Hedge and Cushman.)						
Cushman, George H., Lynn, Mass. Measure for boots or shoes.	225,210	Mar. 9	270	77	17	516
Cushman, Henry T., North Bennington, Vt. Combined ruler and pencil-case.	233,203	Oct. 12	500	138	18	828
Cushman, Joseph and J. B. Thomson, Ill. Windmill.	226,498	Apr. 13	408	116	17	827
Cushman, Josiah B. (See Cushman, Joseph and J. B.)						
Custer, George, assignor of part interest to S. F. Minton and G. W. Nash, Bremond, and W. H. Hammond, Calvert, Tex.; said Minton assignor of one-fourth his interest to said Nash. Vehicle-spring.	228,983	June 22	1025	279	17	1409
Custer, Joseph, Goshen, Ohio. Seed-planter.	223,320	Jan. 6	135	34	17	25
Cutler, Dwight, et al. (See Scofield, Levi, assignor.)						
Cutler, George A., St. Louis, Mo. Compound for preserving fruit, &c.	228,804	June 15	810		17	1369
Cutter, Francis L., Brooklyn, N. Y. Lawn-mower	223,889	Jan. 27	836	223	17	173
Cutter Tower Company. (See Atwood, Kimball C., assignor.)						
Cutter, William F., Everett, assignor of part interest to J. I. Hillard, Boston, W. A. Martin, Cambridge, and C. W. Thorndike, Chelsea, Mass. Car-coupling.	228,042	May 25	1118	318	17	1190
Cutting, Lewis, San Francisco, Cal. Machine for filling cans with meat.	229,590	July 6	97	26	18	23
Cutting, Lewis, San Francisco, Cal. Machine for filling cans.	232,339	Sept. 21	561	155	18	632
Cyphers, Melville B., Greenville, Mich. Combined grain scales and meter.	226,161	Apr. 6	15	4	17	749
Cziner, Matyas, New York, N. Y. Apparatus for collecting alcoholic vapors in water	225,349	Mar. 9	441	128	17	543
Da Costa, Albert M., Brooklyn, N. Y. Finger-guide for type-writers.	229,386	June 29	1481	408	17	1480
Da Costa, Albert M., Brooklyn, N. Y. Type-writing machine.	232,692	Sept. 28	982	270	18	709
Daggett, John C., Neponset, assignor to A. Torrey & Co., Boston, Mass. Boot and shoe.	227,153	May 4	79	22	17	990
Daggett, John C., assignor of one-half interest to W. W. Whitcomb, Boston, Mass. Valve for waste-pipes	229,972	July 13	536	149	18	97
Daggett, Robert P., Indianapolis, Ind. Safety attachment for breech-loading guns.	230,693	Aug. 3	112	32, 33	18	264
Dahlem, Albert, Sauk Centre, Minn. Envelope-fastener	227,961	May 25	1033	294	17	1177
Daily, George W. (See Pinney and Daily.)						
Daimler, Gottlieb W., Deutz-on-the-Rhine, Germany. Gas-motor engine.	232,243	Sept. 14	443	122	18	605
Dakan, John M., Rosby's Rock, W. Va. Nut-lock.	235,751	Dec. 21	851	237	18	1438
Dake, Daniel W., Beloit, Wis. Scale-beam.	232,393	Sept. 21	631	174	18	643
Dake, Horace M., Nunda, N. Y. Domestic fruit-drier.	236,000	Dec. 28	1162	325	18	1499
Dake, Robert P., Colby, Wis. Hand-power.	232,244	Sept. 14	444	122	18	605
Dale, Alfred B. (See June, Solomon, assignor.)						
Dale, William, New York, N. Y. Composite tile roofing	226,983	Apr. 27	1002	278	17	944
Dallery, Francis E., Jersey City, N. J. Extinguishing device.	225,350	Mar. 9	442	128	17	543
Dalton, George, Leeds, county of York, England. Apparatus for crushing stones, &c.	223,487	Jan. 13	347	93	17	74
Daly, John A., Washington, D. C. Coating rubber with metal.	233,144	Oct. 12	434		18	816
Daly, William. (See Ronehel, John M., assignor.)						
Dalzell, James, Pittsburg, Pa. Manufacture of peg-lamps.	224,519	Feb. 17	632	183	17	338
Daman, Williams. (See Halley, Samuel D., assignor.)						
Damant, William E., deceased, assignor, by mesne assignments, to W. Hessin, Toronto, Ontario, Canada. Lozenge-cutting machine. (Reissue)	9,060	Jan. 27	940	251	17	190
Danby, James, assignor to J. S. McDaniel, Wilmington, Del. Pressure-regulator valve.	223,891	Jan. 27	838	224	17	173
Dancel, Christian, New York, N. Y., and E. C. Smith, Westport, Conn. Machinery for splitting and beveling leather. (Reissue)	9,235	June 8	677	186	17	1342
Dando, Robert B., Alta, Iowa. Show-case.	233,213	Oct. 12	511	142	18	829
Dancer, David S. (See Carrothers, James, assignor.)						
Danforth, Deloss A. (See Payne and Danforth.)						
Dangerfield, Francis S., Auburn, N. Y. Match-safe.	229,101	June 22	1150	315	17	1427
Dangoise, Ernest, Brussels, Belgium. Paper-bag machine.	226,287	Apr. 6	156	44 45 46	17	774
Daniels, Aaron M., assignor to S. Allen, Hartford, Conn. Lining for boots and shoes.	232,694	Sept. 28	984	271	18	709
Daniels, Arthur J., Southbridge, Mass. Grocer's fork.	234,855	Nov. 30	1298	350	18	1331
Daniels, Charles, assignor of one-half interest to R. M. Bassett, Birmingham, Conn. Corset.	226,286	Apr. 6	155	44	17	774
Daniels, Charles A., Waterville, N. Y. Railway and farm gate.	225,805	Mar. 23	986	283	17	655
Daniels, Fred H. (See Morgan and Daniels.)						
Daniels, George H., Providence, R. I. Device for automatically feeding live stock.	224,278	Feb. 10	354	101	17	281
Daniels, Henry H., Philadelphia, Pa. Padlock.	235,750	Dec. 21	850	237	18	1437
Daniels, Taylor E., Chicago, Ill. Steam feed cooker and drier.	225,511	Mar. 16	633	185	17	585
Daniels, Taylor E., Chicago, Ill. Steam feed cooker and drier.	235,343	Dec. 14	355	97, 98	18	1348

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Daniels, Theodore T., assignor to himself, M. V. Austin, and H. S. Ferguson, Morrison, Ill. Corn-planter.....	233,999	Nov. 2	222	60	18	1022
Daniels, William, Brooklyn, N. Y. Paint-mill.....	229,973	July 13	537	149	18	97
Danielson, Charles J. and G. F., Hyde Park, Ill. Brake for sewing-machines.....	235,752	Dec. 21	852	238	18	1438
Danielson, Gustave F. (See Danielson, Charles J. and G. F.)						
Danner, John, Canton, Ohio. Revolving book-case. (Reissue).....	9,033	Jan. 6	266	70	17	48
Dannhauer, Fredrick P., assignor to himself and W. Wolf, Philadelphia, Pa. Apparatus for dyeing yarn.....	231,014	Aug. 10	486	138	18	332
Darby, George W., Hamilton, Ohio. Ruffing attachment for sewing-machines.....	231,768	Aug. 31	1357	381	18	492
Darby, H. C. (See Jerrold, John E., assignor.)						
Darby, John F., Monroe, Ga. Vehicle-wheel.....	228,805	June 15	811	222	17	1369
Darby, Thomas C., Pleshey Lodge, near Chelmsford, England. Cultivator.....	225,692	Mar. 23	851	247	17	633
D'Arcus, Henry, assignor of one-half to H. B. Griffing, Brooklyn, N. Y. Lamp-wick.....	235,215	Dec. 7	189	51	18	1312
Dark, Elizabeth, D. Collins, and G. W. Nelson, Quitman, Mo. Combined harrow, marker, and cultivator.....	228,612	June 8	546	146	17	1321
Dark, Thomas, Buffalo, N. Y. Device for cleaning out street sewer-pipes and sewers.....	231,015	Aug. 10	488	138	18	332
Darkin, Frank. (See Stephens and Darkin.)						
Darling, Fenner. (See Taft and Darling.)						
Darling, Francis A., Brooklyn, N. Y. Addressing-machine.....	236,001	Dec. 28	1170	325	18	1499
Darling, George S. (See Wilson and Darling.)						
Darling, Joseph, Peachville, Pa. Curtain-fixture.....	234,177	Nov. 9	432	117	18	1066
Darling, Samuel, Providence, R. I. Compensating errors in screws of dividing-engines.....	226,162	Apr. 6	17	5	17	749
Darling, Samuel, Providence, R. I. Dividing-engine.....	227,962	May 25	1034	295	17	1177
Darling, Samuel, Providence, R. I. Graduated measuring-rule.....	230,619	Aug. 3	26	8	18	251
Darling, Samuel, Providence, R. I. Manufacturing mathematical instruments.....	233,488	Oct. 19	865	239	18	896
Darling, Samuel, Providence, R. I. Micrometer-gage for wire and sheet metal.....	235,133	Dec. 7	84	26	18	1296
Darozir, Levi, and L. Dion, Natick, Mass. Sole for boots and shoes.....	223,712	Jan. 20	613	164	17	126
Darrell, Armistead M., assignor, by mesne assignments, to S. C. Kemon and L. Hill, Washington, D. C. Branding-stamp. (Reissue).....	9,516	Dec. 28	1339	367	18	1526
Darrin, Henry A., West New Brighton, assignor to T. W. Butts, Port Richmond, N. Y. Self-leveling ship's berth.....	231,284	Aug. 17	803	225	18	390
Darst, Frank, Eureka, Ill. Drain-tile gate.....	231,544	Aug. 24	1090	306	18	443
Dart, Albert, Richmond, Va. Seed-planting machine.....	225,804	Mar. 23	984	282 } 283 }	17	655
Dart, Henry C., New York, N. Y. Manufacture of self-raising flour.....	224,998	Mar. 2	18		17	459
Dates, George D. (See Pomeroy, Oscar C., assignor.)						
D'Aubigne, Bartolo L., Waterbury, Conn. Button and button-fastener.....	226,722	Apr. 20	684	190	17	882
Dauchy, Samuel T. (See Detwiler, Emanuel, assignor.)						
Daugherty, William B., Carson, Nev. Book-holder.....	234,460	Nov. 16	790	212	18	1135
D'Auria, Luigi, Philadelphia, Pa. Steam-governor.....	230,519	July 27	1223	344	18	222
Davenport, Elber, Waynesville, Ill. Tile and brick kiln.....	235,216	Dec. 7	190	52	18	1312
Davenport, Frederick S., Jerseyville, Ill. Wheel-plow.....	234,176	Nov. 9	430	117	18	1066
Davenport, Ira E., Mechanicsville, Vt. Sled-brake.....	234,252	Nov. 9	521	143	18	1082
Daverio, Gustav, Oberstrass, near Zurich, Switzerland. Roller-mill for grinding grain.....	235,517	Dec. 14	567	162	18	1384
Davey, John. (See Altmann and Davey.)						
David, Augustin O., Paris, France. Manufacture of weldless chains.....	224,659	Feb. 17	798	226 } 227 }	17	365
David, Jacob, Brooklyn, N. Y. Clutch for arrows and bow-strings.....	226,288	Apr. 6	161	46	17	775
Davids, George W. (See Schilling, William J., assignor.)						
Davids, John B., New York, N. Y. Mucilage-brush.....	226,500	Apr. 13	420	118	17	828
Davidson, Alexander, Lamira, Ohio. Device for lasting boots and shoes.....	225,806	Mar. 23	987	283	17	655
Davidson Brothers. (See Davidson, Salomon, assignor.)						
Davidson, Charles B., St. Joseph, Mo. Churning apparatus.....	234,253	Nov. 9	522	144	18	1082
Davidson, Frank C., Mahomet, Ill. Clinometer.....	226,723	Apr. 20	684	191	17	882
Davidson, Herman E., Gloucester, Mass. Ichthyological taxidermy.....	233,078	Oct. 12	348	95	18	802
Davidson, Otis E., Nashville, Tenn. Paper-bag machine.....	234,544	Nov. 16	885	236 } 237 }	18	1151
Davidson, Salomon, assignor to Davidson Brothers, New York, N. Y. Ornamental chain-link.....	230,531	July 27	1236	348	18	224
Davidson, Thomas Y. (See Smith and Davidson.)						
Davidson, William J., Big Spring, Va. Plow and cultivator.....	231,701	Aug. 31	1278	359	18	480
Davies, Edward, Brooklyn, N. Y., assignor to Ansonia Clock Company, Ansonia, Conn. Clock.....	231,769	Aug. 31	1358	382	18	492
Davies, Edward, Brooklyn, N. Y., assignor to Ansonia Clock Company, Ansonia, Conn. Pendulum-regulator for clocks.....	231,770	Aug. 31	1359	382	18	492
Davies, Henry, Newport, Ky., assignor to Queen City Dash Company, Cincinnati, Ohio. Carriage-dash frame.....	235,935	Dec. 28	1095	303	18	1486
Davies, Henry J., and D. M. Somers, Brooklyn, N. Y.; said Somers assignor to said Davies. Clock-case.....	225,112	Mar. 2	155	44	17	483
Davies, Henry J., and D. M. Somers, Brooklyn, N. Y. Clock-case.....	228,614	June 8	549	146	17	1321
Davies, Henry J., Brooklyn, N. Y. Clock-case.....	228,613	June 8	547	146	17	1321
Davies, Henry J., Brooklyn, N. Y. Alarm-clock.....	230,246	July 20	876	249	18	158
Davies, James and F. B. Chidester, assignors of one-third interest to L. H. Broome, Jersey City, N. J. Lathe.....	225,921	Mar. 30	1121	320	17	691
Davies, Joseph D., Covington, Ky. Steam-engine.....	225,351	Mar. 9	443	128 } 129 }	17	543
Davies, Robert W., et al. (See Schaefer, John A., assignor.)						
Davies, Thomas, Fall River, Mass. Root-cutter.....	235,416	Dec. 14	438	123	18	1362
Davis, Abbot R., Boston, Mass., assignor to F. J. Kaldenberg, New York, N. Y. Working amber.....	234,756	Nov. 23	1165		18	1203
Davis, Abbott R., Boston, Mass., assignor to J. Andrade & Co., New York, N. Y. Feather duster.....	226,601	Apr. 20	550	154	17	860
Davis, Alfred G. (See Davis, Charles C. and A. G.)						
Davis, Augustus B., assignor of nine-twentieths interest to J. K. Boyer, Philadelphia, Pa. Car-spring.....	231,018	Aug. 10	493	139	18	333
Davis, Augustus B., assignor of nine-twentieths interest to J. K. Boyer, Philadelphia, Pa. Car-spring.....	231,019	Aug. 10	494	139	18	333
Davis, Augustus B., Philadelphia, Pa. Measuring and mixing gage.....	232,466	Sept. 21	723	200	18	658
Davis, Augustus G., Baltimore, Md. Circuit-closer for telephones.....	232,806	Oct. 5	11	4	18	741
Davis, Benjamin L., Petrolia, assignor of one-half interest to C. B. Simmons, Oil City, Pa. Calculator.....	228,448	June 8	339	93, 94	17	1291
Davis, Charles C. and A. G., Smith's Ford, S. C. Cotton chopper and cultivator.....	223,488	Jan. 13	348	93	17	74
Davis & Co., W. C. (See Davis, William C., assignor.) (Reissue.)						
Davis, Cornelius F. (See Duchemin, William, assignor.)						
Davis, Daniel. (See Davis, Robert W. and D.)						
Davis, David P., Jersey City, N. J. Hydraulic elevator.....	229,591	July 6	98	26	18	23

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Davis, David W., Detroit, Mich. Preparing and preserving fish.....	226,390	Apr. 13	275	81	17	806
Davis, Ferdinand E., Cleveland, Ohio. Machine for cleaning intestines.....	230,927	Aug. 10	389	112 113	18	318
Davis, Francis N., Beloit, Wis. Paper pail.....	229,678	July 6	189	52	18	36
Davis, Francis N. (See McPherson, James R., assignor.)						
Davis, Frank B., Johnstown, Pa., assignor to Cambria Iron Company. Nut-lock.....	223,219	Jan. 6	13	3	17	5
Davis, Frank B., Johnstown, Pa. Roll for forming billets from steel railway-rails.....	226,982	Apr. 27	1001	278	17	944
Davis, Frank H., Fitchburg, Mass. Shuttle-operating mechanism for looms.....	229,238	June 29	1296	357	17	1456
Davis, Henry R., Pioneer, Pa. Apparatus for flooding oil-wells.....	225,111	Mar. 2	153	44	17	483
Davis, Ira S., assignor of one-half interest to S. J. Wise, Ypsilanti, Mich. Door-spring.....	225,973	Mar. 30	1194	339	17	702
Davis Iron Wagon Company. (See Davis, Robert W. and D., assignors.)						
Davis, Isaac, Trenton, N. J. Triturating-machine.....	227,498	May 11	475	136	17	1067
Davis, James B., Washington, D. C. Lock for ordnance.....	233,142	Oct. 12	431	119	18	816
Davis, James B., Washington, D. C. Primer for ordnance.....	233,143	Oct. 12	433	119	18	816
Davis, James E., Palmyra, Ohio. Gate-hinge.....	223,890	Jan. 27	837	223	17	173
Davis, James M., Knobel, Ark. Hame.....	223,489	Jan. 13	349	93	17	74
Davis, John, Allegheny, Pa. Apparatus for tanning.....	234,659	Nov. 23	1052	284	18	1185
Davis, John H., assignor to O. E. Thompson, Ypsilanti, Mich. Clover and grass seed sower.....	230,754	Aug. 3	181	53	18	276
Davis, John O., Hartford, Conn. Expansion-connection for pipes.....	231,479	Aug. 24	1015	285	18	432
Davis, John S., Attleborough, Mass. Acoustic telephone.....	233,215	Oct. 12	513	143	18	830
Davis, John T., San Francisco, Cal. Ore crusher and pulverizer.....	229,387	June 29	1483	408	17	1480
Davis, John W., Elvaston, Ill. Cultivator.....	227,741	May 18	764	215	17	1123
Davis, Joseph H., Sewickley, Pa. Brush for cleaning castings.....	232,600	Sept. 28	875	242	18	691
Davis, Joseph M. (See Davis, Myron C. and J. M.)						
Davis, J. Phelps, Middletown, Conn. Artificial stone.....	224,660	Feb. 17	800		17	365
Davis, L. (See Oviatt, Clarence C., assignor.)						
Davis, Levi, Jr., Big Rock, Ill. Fender for cultivators.....	226,501	Apr. 13	421	118	17	828
Davis, Luke, Boston, Mass. Fan attachment for elevators.....	227,497	May 11	474	136	17	1067
Davis, Martin S., Toledo, Ohio. Fur-covered sleigh.....	233,331	Oct. 19	679	187	18	865
Davis, Michael F., Portland, Me. Rowlock. (Reissue).....	9,269	June 29	1631	449	17	1501
Davis, Michael F., Portland, Me. Oar and scull.....	231,016	Aug. 10	489	138	18	332
Davis, Michael F., Portland, Me. Foot-board and steering apparatus for boats.....	231,017	Aug. 10	492	138	18	333
Davis, Montgomery R., Jackson, Mich. Door-spring.....	224,584	Feb. 17	718	204	17	352
Davis, Myron C. and J. M., Worcester, Mass. Mill for grinding ores, &c.....	233,401	Oct. 19	768	211	18	880
Davis, Obadiah, Battle Creek, Mich. Stem winding and setting watch.....	228,987	June 22	1028	280	17	1409
Davis, Owen R., assignor of one-half interest to L. Maish, York, Pa. Steam vacuum-pump.....	226,285	Apr. 6	154	44	17	774
Davis, Percy L., San Francisco, Cal. Velocipede.....	224,153	Feb. 3	205	59	17	237
Davis, Rembrandt P. (See Murray, Henry, assignor.)						
Davis, Robert W. and D., Elmira, N. Y., assignors to Davis Iron Wagon Company. Running-gear for wagons.....	231,545	Aug. 24	1090	306	18	443
Davis, Rufus P., Monroe, N. C. Baling-press.....	228,876	June 15	892	243	17	1381
Davis, Samuel S. (See Davis, Thomas B. and S. S.)						
Davis, Thomas B. and S. S., Rock Island, Ill. Steam-trap.....	224,661	Feb. 17	800	227	17	365
Davis, Thomas H., et al. (See Reid, William A., assignor.)						
Davis, William C., assignor to W. C. Davis & Co., Cincinnati, Ohio. Oven and oven-door. (Reissue).....	9,243	June 8	690	189	17	1344
Davis, William E., Jersey City, N. J. Telegraph relay and sounder.....	233,214	Oct. 12	512	142	18	830
Davis, William H., Minneapolis, Minn. Spoke-tenoning machine.....	232,340	Sept. 21	563	155	18	632
Davis, William H., Minneapolis, Minn. Harvester.....	232,632	Sept. 28	912	251	18	697
Davis, William M., Philadelphia, Pa. Depositing gold from its solutions.....	227,963	May 25	1036		17	1177
Davis, William M., Washington, D. C. Scarf and necktie holder.....	230,755	Aug. 3	183	53	18	276
Davis, William S., assignor to E. R. Hall, Highland Park, Ill. Noiseless slate-frame.....	223,636	Jan. 20	530	143	17	114
Davis, Zebulon. (See Wallace and Davis.)						
Davis, Zebulon, Canton, Ohio. Railway-crossing.....	227,154	May 4	80	22	17	991
Davis, Zebulon, assignor to W. B. Blake, Canton, Ohio. Vapor-burner for stoves.....	235,415	Dec. 14	436	123	18	1362
Davis, Zebulon, assignor to W. B. Blake, Canton, Ohio. Vapor-stove.....	235,624	Dec. 21	705	200	18	1413
Davison, Darius, New York, N. Y. Steam-generator.....	232,465	Sept. 21	720	200	18	657
Davison, David G., Paris, Ill. Saw-set.....	231,772	Aug. 31	1362	382	18	493
Davy, James, Jr., Niagara Falls, N. Y. Preparing wood for making paper-pulp.....	229,307	June 29	1387		17	1468
Dawes, Alfred, Chelsea, Mass. Portable and adjustable staging.....	228,518	June 8	429	117	17	1304
Dawn, Harry, assignor of one-half to B. Rose, New York, N. Y. Comb.....	235,344	Dec. 14	357	98	18	1318
Dawson, Edmund. (See Richardson and Dawson.)						
Dawson, George W., assignor to E. Over, Indianapolis, Ind. Filter.....	234,660	Nov. 23	1053	284	18	1185
Dawson, George W., assignor to E. Over, Indianapolis, Ind. Filter.....	234,661	Nov. 23	1055	284	18	1185
Dawson, John E. (See Richardson and Dawson.)						
Dawson, Patrick C., Providence, R. I. Mechanism for compressing drawing-rolls of spinning-frames, &c.....	235,936	Dec. 28	1096	303	18	1487
Dawson, William J., Lawrence, Kans. Vehicle.....	233,480	Oct. 19	857	236	18	894
Day, Charles D., et al. (See Day, Erastus, assignor.)						
Day, Charles S., Baltimore, Md. Hominy-mill.....	232,693	Sept. 28	983	270	18	709
Day, Erastus, assignor to himself, A. E. Brown, J. M. Ferris, and C. D. Day, Cleveland, Ohio. Hoisting, carrying, and dumping device.....	231,767	Aug. 31	1354	381	18	492
Day, Hannah E. (See Day, Samuel, assignor.)						
Day, Harry K., San José, Cal. Straw-burning boiler-furnace.....	223,279	Jan. 6	86	21	17	17
Day, Henry L., Truckee, Cal. Frog for timber-chutes.....	229,971	July 13	536	149	18	97
Day, John, Brooklyn, N. Y. Cornice-hook.....	229,873	July 13	430	119	18	80
Day, John R., assignor of two-thirds interest to J. Cohen and C. Lamoroux, New York, N. Y. Window-shutter opener.....	230,114	July 20	714	200	18	135
Day, Josiah F., Allegheny, Pa. Brow-band for bridles.....	228,877	June 15	893	244	17	1381
Day, Louis S., and B. S. Lewis, New Haven, Conn. Feed attachment to metallic-cartridge-crimping machines.....	228,447	June 8	238	93	17	1271
Day, Lyman H., New York, N. Y. Suspender-end.....	230,532	July 27	1237	349	18	225
Day, S. A., et al. (See Mearns, Andrew, assignor.)						
Day, Samuel, assignor to H. E. Day, Ann Arbor, Mich. Cistern-filter.....	231,771	Aug. 31	1360	382	18	493
Day, William E., Chicago, Ill. Wagon-rack.....	233,838	Nov. 2	13	4	18	989
Dayton, Morgan A., Jr., et al. (See Coon, Charles, assignor.)						
Deacon, Samuel, and W. Miller, Lawrence, Mass. Weft-trimmer.....	235,854	Dec. 28	995	276	18	1471
Deacon, William. (See White, Charles B., assignor.)						
Deal, Josiah J., Wilmet, Ohio. Cultivator.....	223,713	Jan. 20	613	164	17	126
Deamude, Charles, and G. W. Cannon, Danville, Ill. Car-coupling.....	229,679	July 6	191	53	18	36
Dean, Abiathar W., assignor of one-half interest to L. Laury, Taunton, Mass. Carding-machine.....	229,808	July 13	353	99	18	68

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Dean, Cyrus S., Crowland, Ontario, Canada, assignor of one-half interest to J. D. Smith, Buffalo, N. Y. Drag-saw.....	229,975	July 13	539	150	18	93
Dean, William B. (See Reynolds and Thomas, assignors.) (Reissue.)						
Deane, Erasmus M., St. Paul, Minn. Hay and grain elevator.....	226,985	Apr. 27	1004	279	17	944
Deane, Walter P., Attleborough Falls, Mass., assignor, by mesne assignment, to D. Goff & Sons and L. B. Goff, Pawtucket, R. I. Braid-holder.....	227,964	May 25	1037	295	17	1177
Deane, Walter P., Canton, Mass., assignor to L. B. Goff, Pawtucket, R. I. Braid-holder.....	227,965	May 25	1037	295	17	1178
Deane, Walter P., Canton, Mass., assignor to L. B. Goff, Pawtucket, R. I. Holder for braid and other narrow fabrics.....	228,880	June 15	896	245	17	1381
Dearborn, Charles P., Boston, Mass. Hinge for awning-blinds.....	231,655	Aug. 31	1227	345	18	472
Dearborn, Vasco D., Boston, Mass. Shutter-fastener.....	234,000	Nov. 2	223	60	18	1023
Deavs, Charles, New York, N. Y. Extension-chandelier.....	223,893	Jan. 27	839	224	17	173
De Bus, Henry, Cincinnati, Ohio. Manufacture of barrels for white alcoholic liquors.....	226,044	Mar. 30	1280	.....	17	716
Decker, Alexander C. (See Ayres and Decker.)						
Decker, C. Vanderbilt, New Springville, N. Y. Ship's pump.....	225,353	Mar. 9	446	130	17	544
Decker, George W. (See Hann and Decker.)						
Decker, George W., Canandaigua, N. Y. Horse-collar fastening.....	233,402	Oct. 19	769	211	18	880
Decombe, Joseph, San Francisco, Cal. Door-hinge.....	235,417	Dec. 14	439	124	18	1362
De Coster, Jules M., La Grange, Mo. Drag-saw.....	233,403	Oct. 19	769	212	18	880
Decou, Susan H., Centreville, Ohio. Window-frame.....	224,818	Feb. 24	1005	234	17	414
Deconflé, Anatole, Paris, France. Cigarette-machine.....	230,177	July 20	785	{ 219 } { 220 }	{ 18 }	145
Dederer, Charles H., Jersey City, N. J. Manufacture of horn buttons.....	224,399	Feb. 10	492	141	17	304
Dederick, Peter K. (See Gchrt, Albert A., assignor.)						
Dederick, Peter K., Albany, N. Y. Baling-press. (Reissue).....	9,212	May 25	1254	355	17	1212
Dederick, Peter K., Albany, N. Y. Baling-press.....	224,279	Feb. 10	355	101	17	282
Dederick, Peter K., Albany, N. Y. Baling-press.....	224,280	Feb. 10	357	102	17	282
Dederick, Peter K., Albany, N. Y. Baling-press.....	224,261	Feb. 10	358	{ 102 } { 103 }	{ 17 }	282
Dederick, Peter K., Albany, N. Y. Bale-wire inserting and bale-dividing device.....	227,616	May 18	613	176	17	1101
Dederick, Peter K., Albany, N. Y. Baling-press.....	227,617	May 18	614	176	17	1101
Dederick, Peter K., Albany, N. Y. Hay-baling machine.....	227,677	May 18	681	194	17	1110
Dederick, Peter K., Albany, N. Y. Bale-tie.....	230,620	Aug. 3	27	8	18	251
Dederick, Peter K., Albany, N. Y. Baling-press.....	231,215	Aug. 17	732	{ 205 } { 206 }	{ 18 }	378
Dederick, Peter K., Albany, N. Y. Tread or railway horse-power.....	231,656	Aug. 31	1228	{ 345 } { 346 }	{ 18 }	472
Dederick, Peter K., Albany, N. Y. Baling cotton, &c.....	233,603	Oct. 26	1020	284	18	932
Deere & Mansur Company. (See Atkinson, James W., assignor.)						
Deere, Mansur & Co. (See Bailey, John H., assignor.)						
Deere & Mansur Company. (See Johnson, William H., assignor.)						
Deering, Mark L., Cleveland, Ohio. Manufacture of paper bags.....	227,350	May 11	314	91	17	1040
Deering, William. (See Hodges, Pliny F., assignor.)						
Deering, William, Louisville, Ky. Horse-power.....	227,155	May 4	82	22	17	991
Dees, Mark A., Scranton, Miss. Device for supporting a lamp and swing-brush.....	225,807	Mar. 23	927	223	17	655
Deevy, Patrick, Melrose, Iowa. Guard-finger and sickle-bar.....	235,855	Dec. 28	996	276	18	1471
Deey, Edward M., New York, N. Y. Apparatus for transporting ships overland.....	231,658	Aug. 31	1230	346	18	472
Defiance Machine Works. (See Seymour, Charles, assignor.)						
De Frain, John, assignor to himself and D. J. Chapman, Philadelphia, Pa. Vegetable-cutter.....	225,114	Mar. 2	158	45	17	483
De Gaetano, Stephen, Brooklyn, assignor to H. W. Collender, New York, N. Y. Pool-ball frame.....	228,879	June 15	895	244	17	1381
De Gonzenbach, Charles A., et al. (See Affeltranger, Rudolph, assignor.)						
De Grange, Daniel W. F., Baltimore, Md. Railway signal-lantern.....	231,702	Aug. 31	1278	359	18	480
De Groat, William N., assignor of one-half interest to A. L. Maxwell, Knoxville, Tenn. Rotary engine.....	224,999	Mar. 2	18	5, 6	17	459
De Grush, James B., and J. Wroath, Sandy Hill, N. Y. Side-bar vehicle.....	227,499	May 11	476	136	17	1067
De Haven, Isaac, Allegheny, Pa. Cooking-stove.....	224,857	Nov. 30	1300	350	18	1231
Deherrypon, Joseph M. A., Paris, France. Manufacture of glassware.....	223,637	Jan. 20	531	.....	17	114
Dehne, Friedrich. (See Woolnough, George, assignor.)						
Deidrich, William S. (See Brown and Deidrich.)						
Deitz, Alonzo E., Brooklyn, N. Y. Lock.....	225,808	Mar. 23	988	234	17	655
Deknatel, John A. (See Hamann, August, assignor.)						
Dekremen, Dio. (See Wood, Joseph S., assignor.)						
Delamater, Cornelius H., et al. (See Ericsson, John, assignor.)						
Delamater, Cornelius H., et al. (See Ericsson, John, assignor.) (Reissue.)						
Delamater, Cornelius H., et al. (See Rider, Alexander K., assignor.) (Reissue.)						
Delamere, Thomas, Chicago, Ill. Locomotive fire-box.....	233,481	Oct. 19	858	{ 236 } { 237 }	{ 18 }	894
Delan, Surville J., New York, N. Y. Game apparatus.....	232,394	Sept. 21	632	174	18	643
Delaney, Alexander, Richmond, Va. Spark-arrester for steam-boilers.....	234,001	Feb. 3	33	10	17	208
Delaney, Joseph, assignor to M. M. Delaney, Ashland, Pa. Operating cars on inclined planes.....	231,020	Aug. 10	495	{ 139 } { 140 }	{ 18 }	333
Delaney, Michael M. (See Delaney, Joseph, assignor.)						
Delaney, Patrick B., Philadelphia, Pa. Telegraph-key.....	232,007	Sept. 7	161	42	18	550
Delany, Thomas, Waterloo, N. Y. Plant-protector.....	223,892	Jan. 27	839	224	17	173
De Lany, William, Cobourg, Ontario, Canada. Fence-post.....	235,518	Dec. 14	569	162	18	1384
De La Vega, Miguel, and L. D'Oliveira, New York, N. Y. Fabrication of sugar.....	235,345	Dec. 14	357	.....	18	1348
De La Vergne, John C., New York, N. Y. Beer-cooler.....	230,694	Aug. 3	114	33	18	265
De La Vergne, John C., New York, N. Y. Bottle and stopper.....	232,468	Sept. 21	724	201	18	658
De La Vergne, John C., New York, N. Y., and J. J. Suckert, Jersey City, N. J. Method of and apparatus for bottling and barreling malt and fermented liquids under pressure.....	233,332	Oct. 19	680	187	18	865
De La Vergne, John C., and W. M. Mixer, New York, N. Y. Compression and vacuum pump.....	233,736	Oct. 26	1170	{ 325 } { 326 }	{ 18 }	956
Delharpe, Alphonse, Tarare, France. Drying textile fabrics.....	235,937	Dec. 23	1097	303	18	1487
Deline, Jeremiah, Akron, Ohio. Carriage-top.....	236,002	Dec. 23	1172	325	18	1500
Delisle, Oscar, Hoboken, N. J. Show-box.....	226,984	Apr. 27	1003	279	17	944
Delker, George, Henderson, Ky. Spring-vehicle.....	234,254	Nov. 9	523	144	18	1082
Delkescamp, Adolph, assignor of one-half interest to F. B. Bradley, Southington, Conn. Eyclet.....	226,289	Apr. 6	162	47	17	775
Dell, John C., Philadelphia, Pa. Coffee-grinding mill.....	227,742	May 18	765	215	17	1123
Dellenbaugh, Frederick S., New York, N. Y. Stylographic fountain-pen.....	229,102	June 22	1152	315	17	1427
De Loach, William H., Kirby Springs, Ga. Horse-power.....	231,410	Aug. 24	939	266	18	420



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De Leach, William H., Kirby Springs, Ga. Water-wheel.....	231,411	Aug. 24	940	266	18	420
De Locht, Léon, Liege, Belgium. Microphone.....	224,400	Feb. 10	492	142	17	304
De Long, Alfred B. (See Hill, William E., assignor.)						
De Long, George A., Phoenix, N. Y. Plow.....	229,239	June 29	1297	357	17	1456
De Long, M. David, Chicago, Ill. Appliance for self-instruction in dancing.....	233,482	Oct. 19	859	237	18	894
Demarest, Ephraim B., New York, N. Y. Hod-elevator.....	231,021	Aug. 10	497	140	18	334
Demarest, John, New York, N. Y. Valve for water-closets.....	226,224	Apr. 6	88	24	17	761
Demarest, John, New York, N. Y. Water-closet valve.....	232,008	Sept. 7	163	42	18	550
Demarest, John, New York, N. Y. Flushing cisterns.....	232,009	Sept. 7	164	42	18	551
Demarest, John, New York, N. Y. Water-closet.....	233,145	Oct. 12	435	119	18	816
Demarest, John, New York, N. Y. Water-closet basin.....	235,134	Dec. 7	86	26	18	1296
Demond, George W. and L., Brooklyn, N. Y. Chimney-top and ventilator.....	224,154	Feb. 3	206	60	17	237
Demond, Louis. (See Demond, George W. and L.)						
Demoreest, Albert F., Muscatine, Iowa. Window and door screen.....	232,467	Sept. 21	724	201	18	658
De Mott, George W., Lodi, N. Y. Ironing-table.....	225,352	Mar. 9	445	130	17	544
Dénéchand, Jean, San Francisco, Cal. Safety railway-car.....	235,135	Dec. 7	87	27	18	1296
Dengel, Christian, East New York, N. Y. Medical compound.....	229,874	July 13	431		18	80
Denham, Alexander M., Philadelphia, Pa. Dental plugger.....	229,809	July 13	354	99	18	69
Denison, Amos B., Keene, N. H. Bracket-stand. (Reissue).....	9,517	Dec. 28	1340	367	18	1526
Denison, Amos B., Keene, N. H. Metal bracket.....	227,966	May 25	1038	295	17	1178
Denison, Charles F., Springfield, Mass. Shuttle-bobbin for sewing-machines.....	231,285	Aug. 17	804	225	18	391
Denison, Charles H., Springfield, Mass. Culf.....	234,856	Nov. 30	1299	350	18	1231
Denison, Louis B., Delaware, Ohio. Triped-head for leveling-instruments.....	224,155	Feb. 3	206	60	17	237
Denison, Russel A., Providence, R. I. Carpet-lining.....	228,734	June 15	713	196	17	1356
Denlinger, Abraham F., Jamton, Ohio. Gate.....	229,974	July 13	538	150	18	98
Denman, Julius R., Newark, assignor to D. A. Vanhorne, Orange, N. J. Annealing glass..	229,976	July 13	540	150	18	98
Denneu, Augustus M., W. C. Du Bois, C. C. Gee, and F. C. Pettigrove, Oakland, Cal. Dry- } ore-washing machine.....	234,255	Nov. 9	524	144	18	1082
Dennett, Alphens A., and G. H. Holmes, assignors to New Britain Knitting Company, } New Britain, Conn. Mechanism for operating the thread-guides of straight-knitting } machines.....	230,533	July 27	1238	349	18	225
Dennett Dental Niboli Company. (See Dennett, Herbert E., assignor.)						
Dennett, Herbert E., Boston, Mass. Vial.....	227,351	May 11	315	91	17	1040
Dennett, Herbert E., Boston, Mass., assignor to Dennett Dental Niboli Company, Hartford, } Conn. Dental compound for preventing pain.....	232,807	Oct. 5	12		18	741
Denning, James, Pittsburg, Pa. Manufacture of pressed glassware.....	230,534	July 27	1240	349	18	225
Denninger, Frank, New York, N. Y. Wood-bending machine.....	228,878	June 15	894	244	17	1381
Dennis & Co., E. (See Kline, Henry, assignor.)						
Dennis, James, Jr., Providence, R. I. Incubator.....	230,247	July 20	877	249	18	159
Dennis, Joseph S., et al. (See Betts, Lewis F., assignor.)						
Dennis, Thomas J., Newark, N. J. Kerosene air-warmer.....	234,117	Nov. 9	362	100	18	1054
Dennison, Albert S., Watertown, N. Y. Galvanic horseshoe-pad.....	229,103	June 22	1153	315	17	1427
Dennison, D. Stewart, et al. (See Babcock, Stephen E., assignor.)						
Denton, Earl P., Glencoe, Ky. Vermin trap or insulator.....	223,321	Jan. 6	136	34	17	25
De Planque, Richard, Philadelphia, Pa. Plaque for painting and decoration.....	231,657	Aug. 31	1230	346	18	472
De Pontee, Albert G. (See Scott, De Pontee, and Wyman.)						
Depp, Hezekiah E., Sedalia, Mo. Street-car propeller.....	227,417	May 11	382	112	17	1051
De Pur, George W., Mount Pleasant, Mich. Churn.....	235,136	Dec. 7	88	27	18	1296
Derby, Marion E., Jersey City, N. J. Preserving fruits and other articles.....	233,217	Oct. 12	517		18	831
Derickson, William J., assignor of one-half interest to L. P. Christiansen, Clayton, Cal. } Ten-foot extension-rule.....	224,401	Feb. 10	493	142	17	304
Dernham, Fanny, Cincinnati, Ohio. Sewer.....	232,948	Oct. 5	185	49	18	769
Dervaux, Alfred, Brussels, Belgium. Purifying apparatus for steam-boilers.....	230,248	July 20	879	249	18	159
Desbrough, George, Utica, N. Y. Heel protector and supporter for rubber shoes.....	231,409	Aug. 24	939	265	18	420
Deschamps, Felix A. M., Paris, France. Toilet-case.....	230,178	July 20	787	221	18	146
Deschamps, Jules, Paris, France. Hydrostatic scales.....	232,245	Sept. 14	445	122	18	606
Deshazo, Columbus P., et al. (See Harris and Hardin, assignors.)						
Designolle, Paul G. L. G., Paris, France. Amalgamating apparatus.....	228,806	June 15	812	222	17	1370
Designolle, Paul G. L. G., Paris, France. Amalgamating metals.....	228,970	June 15	989		17	1395
De Smedt, Edward J., assignor to New York Improved Anthracite Coal Company, New } York, N. Y. Laying asphalt or concrete pavements or roads. (Reissue).....	9,324	July 27	1325		18	239
De Smedt, Edward J., assignor to New York Improved Anthracite Coal Company, New } York, N. Y. Asphalt roads and pavements. (Reissue).....	9,325	July 27	1326		18	240
De Souza, Manuel F., Springfield, Ill. Valve for steam-pumps.....	225,575	Mar. 16	702	206	17	599
Dessart, Charles H., New York, N. Y. Mask-fastener.....	226,225	Apr. 6	88	24	17	762
De Susini-Ruiséco and de Castel-Angeli, Joseph, Paris, France, assignor to F. S. Kinney, } New York, N. Y. Cigarette-machine.....	224,967	Feb. 24	1158	331	17	439
Detrick, Calvin, assignor of five-twelfths interest to F. C. Mesier, Pittston, Pa. Preparing } coal-culm for fuel, &c.....	223,438	Jan. 13	287		17	65
Detrick, Jacob S., Baltimore, Md. Mechanisms for applying power to sewing-machines....	230,695	Aug. 3	115	33	18	265
Detroit Stove Works. (See Hatchman, Robert, assignor.)						
Detwiler, Emanuel, Milwaukee, Wis. Meat-packing device.....	225,467	Mar. 16	582	169	17	577
Detwiler, Emanuel, Milwaukee, Wis., assignor to S. T. Dauchy. Stove-platform. (Reissue)...	9,277	July 6	327	90	18	56
Detwiler, Jacob J., Greenville, N. J. Insecticide-pastille.....	232,695	Sept. 28	985		18	709
Deubner, John C., Dayton, Ohio. Fan apparatus for forges.....	223,280	Jan. 6	86	21	17	17
Deuse, Amos H. and J. S., Chester, Conn. Die for forming double-twist gunlets.....	224,156	Feb. 3	208	60	17	238
Deuse, James S. (See Deuse, Amos H. and J. S.)						
Deuther, Lorenz A., Buffalo, N. Y. Back for picture or other frames.....	226,201	Apr. 13	275	82	17	806
Deutsch, John M. (See Clemens, De Laski T., assignor.)						
Deutsch, William M., Elizabeth, and C. O. Kanouse, assignors of one-third interest to A. N. } Lewis, Newark, N. J. Manufacture of celluloid-coated drum-heads.....	233,604	Oct. 26	1023		18	932
Devens, Cornelia F., Brattleborough, Vt. Under-garment.....	227,618	May 18	615	177	17	1101
Devens, Henry. (See Curtis, Francis, assignor.) (Reissue.)						
Devereaux, Orrin C. (See Dolloff, Wellington P., assignor.)						
Devereux, Seth K., Castine, Me. Producing designs upon wood.....	230,407	July 27	1094		18	200
Devereux, Seth K., Castine, Me. Jewel-stand.....	230,756	Aug. 3	181	53	18	276
Devereux, Seth K., Castine, Me. Shirt-bosom.....	232,696	Sept. 28	985	271	18	709
Devlin & Co. (See McLoughlin and Ahlqvist, assignors.)						
Devoe, Benjamin G., assignor of one-half to A. C. Ramsey, Kenton, Ohio. Metallic fence...	234,256	Nov. 9	525	145	18	1083
Devoe, Benjamin G., assignor of one-half to A. C. Ramsey, Kenton, Ohio. Metallic fence...	234,257	Nov. 9	527	145	18	1083
Devoe, Frederick W., New York, N. Y. Paint-can.....	226,966	Apr. 27	1007	250	17	945
Devoe, Levi M., et al. (See Schofield, Silas C., assignor.) (Reissue.)						



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Devere, Levi M., Freeport, Ill. Windmill.....	227,418	May 11	384	113	17	1051
De Vout, Bartholomew B., Harrisburg, Pa. Railway-switch stand and lock.....	225,747	Mar. 23	915	266	17	644
Dewaele, Henry, Philadelphia, Pa. Frame for drying netted fabrics.....	225,212	Mar. 9	272	78	17	516
De Warn, Laurens E., New York, N. Y. Manufacture of boots and shoes.....	228,007	May 25	1091	310	17	1185
Dewey, C. D., <i>et al.</i> (See Pridmore, Henry E., assignor.)						
Dewey, David, (See Johnson and Dewey.)						
Dewey, George N. (See Leib, David, assignor.)						
Dewey, Harlow, Westfield, Mass. Iron-planer tool.....	227,500	May 11	476	137	17	1067
Dewey, Harlow, Westfield, Mass. Planer-tool.....	234,545	Nov. 16	889	237	18	1152
Dewey, Isaac H., Rochester, N. Y. Folding rocking-chair.....	227,099	May 4	9	3	17	950
Dewey, Jerome W., assignor to G. W. Brandt and E. Hoffmann, Chicago, Ill. Ironing-board.....	230,249	July 20	880	250	18	159
Dewey, Mary, Chicago, Ill. Dress-shield.....	234,909	Nov. 30	1366	367	18	1242
De Witt, Emil F., Lansingburg, N. Y. Sash-lock.....	223,634	Jan. 13	505	137	17	100
De Witt, Henry C., Chicago, Ill. Carbureter.....	223,490	Jan. 13	350	93	17	75
De Witt, Henry C., Chicago, Ill. Carbureter.....	223,582	Jan. 13	457	124	17	92
Dewitz, Jacob, Peotone, Ill. Gage for sawing spokes.....	231,546	Aug. 24	1092	306	18	443
De Wolf, Henry H., Indianapolis, Ind. Portable balcony.....	223,638	Jan. 20	533	143	17	114
Dexter, Everett A., Black River, and J. Chase, Rochester, N. Y. Chair.....	227,619	May 18	616	177	17	1101
De Young, Charles Z., <i>et al.</i> (See Chamberlain, William T., assignor.)						
De Young, Charles Z., <i>et al.</i> (See Wright, William A., assignor.)						
De Young, Joseph B., <i>et al.</i> (See Chamberlain, William T., assignor.)						
De Young, Joseph B., <i>et al.</i> (See Wright, William A., assignor.)						
D'Henreuse, Rudolph, New York, N. Y. Safety device for windows.....	225,704	Mar. 23	864	{ 252 253 }	17	636
Dibble, Noah H. (See Hardy and Dibble.)						
Dice, Ephraim, Sciota, Ill. Windmill.....	230,928	Aug. 10	391	113	18	318
Dice, Jacob A., St. Mary's, Pa. Carpet-stretcher.....	225,273	Mar. 9	338	99	17	528
Dick, Charles J. A. (See Linders, Thomas L., assignor.)						
Dick, Charles J. A., Leyland Road, Lee, and G. A. Dick, London, England, assignors to said C. J. A. Dick. Metallic alloy.....	228,615	June 8	550	.....	17	1321
Dick, George A. (See Dick, Charles J. A. and G. A.)						
Dick, Herman E. (See Witherell, Eric A., assignor.)						
Dick, Robert, Buffalo, N. Y. Addressing-machine. (Reissue).....	9,282	July 6	332	92	18	57
Dickens, Samuel T., Joplin, Mo. Roll-goods exhibitor.....	223,894	Jan. 27	840	224	17	174
Dickerman, Charles C., Boston, Mass. Lock and key.....	234,002	Nov. 2	224	60	18	1023
Dickerson, Edward N., New York, N. Y. Operating hatchway-doors.....	223,322	Jan. 6	137	35	17	25
Dickerson, Edward N., Jr., New York, N. Y. Electric signaling apparatus.....	230,696	Aug. 3	116	34	18	285
Dickerson, Edward N., Jr., New York, N. Y. Apparatus for lighting gas by electricity.....	234,662	Nov. 23	1056	284	18	1126
Dickerson, Henry J., Appleton, Wis. Shutter-worker.....	226,045	Mar. 30	1281	361	17	716
Dickey, Charles E. (See Gornall, Richard, assignor.)						
Dickey, Fred B. (See Beebe, Dickey, and Barnes.)						
Dickey, Robert B., Waco, Tex. Receipt-book holder.....	234,001	Nov. 2	224	60	18	1023
Dickey, William C. (See Finnegan, John, assignor.)						
Dickey, William D., New York, N. Y. Hydrocarbon-furnace.....	234,395	Nov. 16	710	192	18	1121
Dickey, William D., assignor to himself, J. W. Handren, and J. N. Robins, New York, N. Y. Damper-regulator for furnaces.....	234,970	Nov. 30	1438	387	18	1251
Dickey, William D., assignor of two-thirds interest to A. and G. S. Bennett, Jackson, Mich. Millstone-driver.....	228,043	May 25	1119	319	17	1190
Dickey, William H., assignor of one-half interest to G. S. Bennett, Jackson, Mich. Chain.....	229,104	June 22	1153	315	17	1427
Dickey, William H., assignor of one-half interest to G. S. Bennett, Jackson, Mich. Chain.....	229,105	June 22	1154	316	17	1427
Dickinson, Alfred S., New York, N. Y. Stop-pulley.....	224,662	Feb. 17	801	227	17	366
Dickinson, David A., Baltimore, Md. Stove-oven lining.....	232,950	Oct. 5	186	50	18	769
Dickinson Hard Rubber Company. (See Nickerson, Fred A., assignor.)						
Dickinson, John A., Mobile, Ala. Car-coupling.....	231,216	Aug. 17	734	206	18	370
Dickinson, John C., <i>et al.</i> (See Clough, Francis W., assignor.)						
Dickinson, Thomas, <i>et al.</i> (See Reid, William A., assignor.)						
Dickson, Alfred. (See Frank and Dickson.)						
Dickson, Charles T., Cincinnati, Ohio. Telephone.....	235,856	Dec. 28	997	276	18	1471
Dickson, Gilbert J., Albany, N. Y. Clamp.....	225,000	Mar. 2	20	6	17	460
Dickson, Gilbert J., Albany, N. Y. Locking-latch.....	235,137	Dec. 7	89	28	18	1297
Diedrich, Nicholas. (See Penniman, Elijah P., Sr., assignor.)						
Diehl, Philip. (See Miller and Diehl.)						
Diehl, Philip, Elizabeth, N. J., assignor to Singer Manufacturing Company of New Jersey. Roller-presser for sewing-machines.....	225,274	Mar. 9	339	50	17	528
Dierking, Otto. (See Nuthmann, Theodore, assignor.)						
Dieryckx, Adolph, Buffalo, N. Y. Mashing-machine.....	225,213	Mar. 9	273	78	17	516
Dieryckx, Adolph, Buffalo, N. Y. Alcohol-still.....	228,449	June 8	341	94	17	1291
Diescher, Samuel, Pittsburg, Pa. Bee-hive coke-oven.....	225,354	Mar. 9	446	130	17	544
Diescher, Samuel, Pittsburg, Pa. Coal-washing machine.....	233,404	Oct. 19	770	212	18	880
Dieterich, Charles F., Baltimore, Md. Gas-making apparatus.....	234,546	Nov. 16	890	{ 233 239 }	18	1152
Dieterle, Henry E., assignor of one-half interest to G. Bandelow, Chicago, Ill.; said Dieterle and Bandelow assignors to F. Mack, Cleveland, Ohio. Feeding mechanism for sewing-machines.....	232,010	Sept. 7	165	42	18	551
Dietz, Oswald L. W., assignor of one-half interest to F. E. Tyler, Chattanooga, Tenn. Drain-tile joint.....	233,483	Oct. 19	860	237	18	895
Dietz, William L., Schoharie, N. Y. Broom-corn and cotton scraper and cultivator.....	224,402	Feb. 10	495	142	17	304
Diffany, Frederick, Newark, N. J. Ornament for jewelry.....	232,949	Oct. 5	186	49	18	769
Diffenderfer, Aaron, Allenville, Pa. Sausage-stuffer.....	223,714	Jan. 20	614	164	17	127
Dight, William M. (See Gelvin, John, assignor.)						
Dill, Charles W. (See Pierce, Samuel B., assignor.)						
Dill, Edward, Shelbyville, Ind. Cider-press.....	233,333	Oct. 19	682	187	18	866
Dill, Thomas, Bay City, assignor to J. Clements, Ann Arbor, Mich. Excavating-machine.....	227,222	May 4	158	47	17	1003
Dillaby, William F., Providence, R. I. Safety-hook.....	227,221	May 4	157	46	17	1003
Dille, Harry H., and E. W. McGuire, Richmond, Ind. Lawn-mower.....	231,286	Aug. 17	805	226	18	391
Dillon, Asahel H., Jr. (See Steuart, James A., assignor.)						
Dillon, Peter, Sherbrooke, Quebec, Canada. Type setting and distributing machine.....	225,468	Mar. 16	583	{ 169 170 }	17	577
Dillon, Peter, and J. Cleary, assignors, by mesne assignments, to W. Farwell, Sherbrooke, Quebec, Canada. Soldering-machine. (Reissue).....	9,205	May 18	914	260	17	1148
Dillon, Peter, and J. Cleary, Sherbrooke, Quebec, Canada. Machine for placing beads in cans.....	233,079	Oct. 12	349	96	18	802
Dillon, Peter, and J. Cleary, assignors to W. Farwell, Sherbrooke, Quebec, Canada. Soldering-machine. (Reissue).....	9,479	Nov. 23	1282	343	18	1222
Dimmick, Othello J., Fairbury, Ill. Grain-register.....	233,216	Oct. 12	515	143	18	830

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Dimmick, Robert A. (See Howard, Edward-L., assignor.)						
Dimock, Albert S., Hutchinson, Kans. Windmill.....	232,469	Sept. 21	726	201	18	658
Dimock, Robert H. (See Robinson and Dimock.)						
Dimsey, John E., Vienna Station, Va. Centering-machine.....	228,249	June 1	105	31	17	1243
Dine, Andrew J., Xenia, Ind. Earth-auger.....	228,044	May 25	1121	319	17	1190
D'Infreville, Georges, assignor to Western Union Telegraph Company, New York, N. Y. Telegraph apparatus.....	233,859	Nov. 2	41	11	18	993
D'Infreville, Georges, New York, N. Y., assignor to National Bell Telephone Company. } Telephone system.....	234,578	Nov. 16	932	{ 250 251 }	{ 18	1158
Dingens, Joseph A. (See Hempel, Henry A., assignor.)						
Dingman, Archibald W., Toronto, Ontario, Canada, and H. H. Argue, Derrick City, assignors of one-third interest to J. J. Carter, Titusville, Pa. Electric heater for oil-wells.....	231,287	Aug. 17	806	226	18	391
Dinkelbiller, John G., Cincinnati, Ohio. Rotary brush.....	223,842	Jan. 27	776	207	17	163
Dinsmore, Alfred S., Boston, Mass. Sewing-machine.....	231,155	Aug. 17	649	184	18	366
Dion, Joseph, Chicago, Ill. Stripping-machine.....	227,501	May 11	477	137	17	1067
Dion, Léon. (See Darozir and Dion.)						
Dixon, Ephraim, Evergreen, assignor of one-half interest to M. Riley, Conecuh, Ala. Truss-bridge.....	230,929	Aug. 10	392	113	18	318
Dixon, Franklin M., Philadelphia, Pa. Dropping-bottle.....	234,003	Nov. 2	228	61	18	1023
Dixon, George, Thompsonville, Conn. Pile-wire mechanism for looms.....	225,469	Mar. 16	585	170	17	578
Dixon, Patrick. (See Perkins, Strehorn, and Dixon.)						
Dixon, Theron S. E., Chicago, Ill. Device for transmitting circular motion.....	229,875	July 13	431	119	18	80
Dixon, Theron S. E., Chicago, Ill. Device for transmitting motion.....	230,250	July 20	881	250	18	159
Doane, Willard A., Rochester, N. Y. Machinery for grinding wood for paper-pulp.....	224,002	Feb. 3	36	10	17	209
Doane, Willard A., Kankana, Wis. Wood-pulping machine.....	224,405	Feb. 10	498	143	17	304
Doane, William H., Cincinnati, Ohio. Sectional shaft for wood-working machines.....	228,046	May 25	1123	320	17	1190
Doane, William H., and G. W. Bugbee, assignors to J. A. Fay & Co., Cincinnati, Ohio. } Spoke-throating machine.....	225,355	Mar. 9	447	{ 130 131 }	{ 17	544
Doane, William H., G. W. Passel, and G. W. Bugbee, assignors to J. A. Fay & Co., Cincinnati, Ohio. Variety wood-worker.....	227,223	May 4	160	47, 48	17	1004
Dobbelaar, Lawrence, assignor of one-half interest to D. G. Yuengling, Jr., New York, N. Y. Sign.....	226,724	Apr. 20	685	191	17	882
Dobell, Ebenezer, Hastings, Great Britain. Button or stud.....	229,240	June 29	1298	358	17	1456
Dobson, James, et al. (See Greaves, James, assignor.) (Reissue.)						
Dobson, John, et al. (See Greaves, James, assignor.) (Reissue.)						
Dobson, Robert F., assignor to himself and J. Wharrie, Darlington, Wis. Weighing-scales.....	226,046	Mar. 30	1282	361	17	716
Dobyne, James B., et al. (See Nelson, James S., assignor.)						
Dodd, Alvin H. (See Clay, Robert J., assignor.)						
Dodd, Amzi S. (See Hussey, Charles A., assignor.)						
Doddridge, William C., New Madrid, Mo. Heating-drum.....	223,715	Jan. 20	615	165	17	127
Dodds, John. (See Ritty, Sebastian, assignor.)						
Dodé, Edonard, Montreuil, (near Paris,) France. Bright-gilding iron and other metals.....	230,864	Aug. 10	322	-----	18	308
Dodge, Alfred C., Charlotte, Mich. Milk-pail holder.....	228,327	June 1	195	54	17	1253
Dodge, Cheever K. (See Brady, James, assignor.) (Reissue.)						
Dodge, Christopher G., Jr., New York, N. Y. Distemper-paint.....	223,895	Jan. 27	841	-----	17	174
Dodge, Christopher G., Jr., Philadelphia, Pa. Distemper-paint. (Reissue.).....	9,411	Oct. 12	656	-----	18	855
Dodge, Edward R., New York, N. Y. Folding keel for vessels.....	228,450	June 8	342	94	17	1291
Dodge, Ezra S., Providence, R. I. Separable button.....	229,388	June 29	1484	408	17	1481
Dodge, Israel A., Appleton City, Mo. Hedge-trimmer.....	233,485	Oct. 19	861	238	18	895
Dodge, James M., New York, N. Y. Chain.....	228,735	June 15	713	196	17	1356
Dodge, James M., New York, N. Y. Chain.....	229,978	July 13	543	151	18	98
Dodge, James M., New York, N. Y. Chain.....	229,979	July 13	544	151	18	98
Dodge, James M., New York, N. Y. Chain.....	234,548	Nov. 16	892	{ 239 240 }	{ 18	1152
Dodge, John F., Bennington, N. H. Fork-guard.....	227,224	May 4	163	48	17	1004
Dodge, Mauly C., Caro, Mich. Book-case.....	234,461	Nov. 16	791	212	18	1135
Dodge, Theodore A., trustee. (See Addy, Charles J., assignor.)						
Dods, Henry. (See Connor and Dods.)						
Dodson, Orson W., Henderson, Tex. Cloth-measuring machine.....	223,716	Jan. 20	616	165	17	127
Dodson, Orson W., Henderson, Tex. Cloth-measuring machine.....	230,757	Aug. 3	184	53, 54	18	276
Dodson, Wilson P., Philadelphia, assignor of one-half interest to A. H. Ege, Mechanicsburg, Pa. Blotter.....	228,808	June 15	814	223	17	1370
Dodson, Wilson P., Philadelphia, assignor of one-half interest to A. H. Ege, Mechanicsburg, Pa. Railway-switch.....	233,146	Oct. 12	436	119	18	816
Dodson, Wilson P., Philadelphia, assignor of one-half interest to A. H. Ege, Mechanicsburg, Pa. Railway-switch.....	233,605	Oct. 26	1023	284	18	932
Doe, George F. (See Doe, George W. and G. F.)						
Doe, George W. and G. F., Fairhaven, Mass. Loom-shuttle spindle.....	231,773	Aug. 31	1362	383	18	493
Doering, Justus, Philadelphia, Pa. Drop-box mechanism for looms.....	225,115	Mar. 2	159	45	17	483
Doerr, George. (See Geldreich, Joseph, assignor.)						
Doescher, Eibe H., Homestead, Iowa. Automatic fire-lighter.....	230,758	Aug. 3	185	54	18	277
Doherty, Daniel A., Boston, Mass. Lunch-box.....	231,156	Aug. 17	650	184	18	366
Doherty, Lucy A. (See Turner, Alexander, assignor.) (Reissue.)						
Doherty, Patrick W., Boston, Mass. Clasp or link.....	226,725	Apr. 20	686	191	17	882
Doland, James H., Malden, Mass. Ventilating apparatus.....	235,217	Dec. 7	191	52	18	1312
Dolbear, Amos E., Somerville, Mass. Combined telephone and electro-magnet.....	226,906	Apr. 27	909	253	17	930
Dolbear, Amos E., Somerville, Mass. Electro-dynamometer.....	228,807	June 15	813	222	17	1370
Dolby, Thomas G. F., London, England. Apparatus for exhausting air from cans.....	230,179	July 20	788	221	18	146
Dolby, Thomas G. F., London, England. Sheet-metal vessel.....	233,080	Oct. 12	350	96	18	802
Dole, Walter N., agent, et al. (See Tregurtha, James, assignor.)						
Dole, Walter N., et al. (See Tregurtha, James, assignor.)						
D'Oliveira, Luiz. (See De La Vega and D'Oliveira.)						
Dolley, Izates E., Port Allegheeny, Pa. Trap for catching birds.....	234,004	Nov. 2	228	61	18	1023
Dolloff, Wellington P., Providence, R. I., assignor to J. W. Greene & Smith, New York, N. Y. Separable button.....	236,988	Apr. 27	1010	280	17	945
Dolloff, Wellington P., assignor to O. C. Devereaux, Providence, R. I. Separable button and stud.....	230,115	July 20	715	200	18	135
Dolloff, Wellington P., assignor to J. C. Harrington, Providence, R. I. Bracelet.....	232,116	Sept. 14	288	81	18	579
Dolloff, Wellington P., assignor to P. and A. Linton, Providence, R. I. Bracelet.....	234,858	Nov. 30	1300	350	18	1231
Dolloff, Wellington P., assignor to himself and E. F. Presbrey, Providence, R. I. Separable button.....	234,910	Nov. 30	1367	367	18	1242
Dolsen, Ninian H., Chatham, Ontario, Canada. Kitchen-cabinet.....	235,074	Dec. 7	16	4	18	1283
Dolson, John L., Charlotte, Mich. Seat-lock.....	229,977	July 13	542	151	18	98

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Dominy, Ezra, Freedom, Ill. Cornstalk-cutter.....	229,106	June 22	1155	{ 316 317 }	17	1427
Donaldson, Robert B., Washington, D. C. Support for dental mouth-glasses.....	224,663	Feb. 17	802	228	17	366
Donaldson, Robert B., Washington, D. C. Socket-handle for tools.....	233,486	Oct. 19	863	238	18	895
Donaldson, Samuel, assignor of two-thirds to A. L. McWhorter and J. P. Clayton, Altoona, Iowa. Attachment to pumps.....	235,938	Dec. 28	1099	304	18	1487
Donath, F. A. Hermann, and C. E. F. Jasper, Dresden, Saxony, Germany. Feeding device for cigar-machines.....	226,226	Apr. 6	89	24	17	762
Donato, Andrew, New York, N. Y. Locomotive-engine.....	226,290	Apr. 6	163	47	17	775
Donato, Tommaso, New York, N. Y. Device for converting motion.....	231,547	Aug. 24	1093	307	18	443
Donker, Edward. (See Donker, Richard and E.)						
Donker, Richard and E., Albany, N. Y. Petit ledger and bill-holder.....	235,138	Dec. 7	93	28	18	1297
Donkersly, Cornelius, New York, N. Y. Railway-switch.....	224,157	Feb. 3	208	60, 61	17	238
Donkersly, Cornelius, New York, N. Y. Elevated-railway turn-table.....	225,002	Mar. 2	22	7	17	460
Donkin, Edward F. (See Von Ringbarz, Theodore, assignor.)						
Donley, William, Conesville, Ohio. Flooring-clamp.....	232,470	Sept. 21	727	202	18	658
Donley, William J., New York, N. Y. Trotting-sulky.....	226,987	Apr. 27	1009	260	17	945
Donlon, William, Minneapolis, Minn. Feed-governor for middlings-purifiers, &c.....	228,180	June 1	22	7	17	1230
Donmoyer, Rudolph W., South Bend, Ind. Fifth-wheel for children's carriages.....	235,139	Dec. 7	94	28	18	1297
Donnel, John W., Bedford, assignor to V. Chambers, Muscatine, Iowa. Millstone-driver.....	236,003	Dec. 28	1174	325	18	1500
Donnell, Edward P., Cincinnati, Ohio. Bill-file.....	226,163	Apr. 6	18	5	17	749
Donnelly, Felix. (See Van Winkle and Donnelly.)						
Donnelly, Michael, Boston, Mass. Guide for winding cord or rope.....	227,743	May 18	766	216	17	1123
Donovan, George L., assignor to C. Rogers & Brother, West Meriden, Conn. Drawer-pull.....	225,576	Mar. 16	703	207	17	599
Donovan, Jeremiah W., Neponset, Mass. Lamp-extinguisher.....	233,218	Oct. 12	518	144	18	831
Donovan, John E., Cincinnati, Ohio. Sewing-machine table.....	225,809	Mar. 23	990	284	17	656
Donovan, John E., Cincinnati, Ohio. Sewing-machine treadle.....	230,251	July 20	884	250	18	160
Donovar, John E., Cincinnati, Ohio. Vapor-burner.....	235,673	Dec. 21	756	215	18	1422
Dons, Christian, et al. (See Alsing, Frederik, assignor.)						
Dooley, Thomas B., Chelsea, assignor to W. H. Forbes, Boston, Mass. Chromatic-printing machine.....	235,606	Dec. 14	674	191	18	1401
Dooling, James, Boston, Mass. Refrigerator packing-box.....	230,252	July 20	884	250	18	160
Doolittle, George, and E. A. Curtiss, Bridgeport, Conn., assignors to said Doolittle. Vehicle-axle.....	227,678	May 18	682	194	17	1111
Doolittle, George W., assignor of one-half interest to W. C. Crusier, Montrose, Pa. Wagon-pole.....	224,403	Feb. 10	496	142	17	304
Doolittle, Moses C., Fort Madison, Iowa. Gate.....	225,512	Mar. 16	635	185	17	586
Doran, Patrick, Brooklyn, assignor to H. C. Meyer & Co., New York, N. Y. Faucet.....	228,736	June 15	715	196	17	1357
Doremus, Henry B., et al. (See Dorn, August, assignor.)						
Doremus, Peter C., Bayonne, N. J. Process and compound for embalming and preserving animal substances.....	228,519	June 8	431	-----	17	1304
Doremus, Willard D., et al. (See Stratton, Samuel L., assignor.)						
Doret, Paul M., Locle, Switzerland. Minute-counting attachment for chronographs.....	223,220	Jan. 6	13	3	17	5
Dorfinger, Louis J. (See Farnham, Frank G., assignor.)						
Dorgan, Joseph H., Plattsburg, N. Y. Horseshoe-machine.....	230,180	July 20	789	{ 222 223 }	18	146
Dorgeval, Polydore, Paterson, N. J. Power-loom.....	234,758	Nov. 23	1167	{ 314 315 }	18	1203
Doring, Ernest N., New York, N. Y. Wardrobe-bedstead.....	223,484	Oct. 19	860	238	18	895
Dorlon, Philetus, Brooklyn, N. Y. Combined butter-cooler and water-holder.....	235,857	Dec. 28	997	276	18	1471
Dorn, August, assignor to himself, J. P. Hennion, and H. B. Doremus, Newark, N. J. Toy.....	224,585	Feb. 17	719	204	17	352
Dorris, George W., Elgin, Tex. Washing-machine.....	223,717	Jan. 20	617	165	17	127
Dorsch, John, Canandaigua, N. Y. Ash-sifter.....	231,659	Aug. 31	1232	346	18	473
Dorser, James C. (See Byers and Dorser.)						
Dorsett, Martha J., Prince George's County, Md. Fruit-drier.....	232,697	Sept. 28	986	271	18	709
Dorsey, John W., Middlebury, and F. L. Reed, Benson, assignors to Vermont Farm Machine Company, Bellows Falls, Vt. Water-tank for milk-cans.....	227,503	May 11	479	138	17	1068
Dorsey, Robert S., et al. (See Woodruff, Chauncey D., assignor.) (Reissue.)						
Dotter, Charles T., Brooklyn, N. Y. Doll.....	235,218	Dec. 7	192	52	18	1312
Doubleday, Henry H., Washington, D. C. Oil-well packer.....	232,013	Sept. 7	168	43	18	551
Doubler, John W. H., assignor to himself and M. E. Haight, Rockford, Ill. Album.....	228,451	June 8	343	95	17	1292
Douds, David D. (See McCaskey and Douds.)						
Dougherty, Edward D., Philadelphia, Pa. Division block and holder for stone-saws.....	228,045	May 25	1122	319	17	1191
Dougherty, George H., Jersey City, N. J. Device for stopping engines.....	236,004	Dec. 28	1174	326	18	1500
Dougherty, James H. (See Briggs and Dougherty.)						
Dougherty, John, Somerville, Mass. Attaching glass knobs to spindles.....	231,903	Sept. 7	30	7	18	529
Dougherty, John B., Rochester, assignor to Burrell, Ives & Co. and D. H. Burrell, Little Falls, N. Y. Hoop.....	233,487	Oct. 19	864	239	18	895
Dougherty, Owen T. (See Herbert and Dougherty.)						
Dougherty, Simon M., Lancaster, Pa. Tobacco-leaf-cutting knife.....	230,116	July 20	716	200	18	135
Dougherty, Tiberius B., Philadelphia, Pa. Self-adjusting anti-sparrow-rest.....	224,520	Feb. 17	633	183	17	338
Dougine, James T., San Francisco, Cal. Excavating-machine.....	225,001	Mar. 2	21	6	17	460
Douglas, Adam B., Monroe, Wis. Holdback for vehicles.....	226,652	Apr. 20	611	171	17	869
Douglas, Charles. (See Gallagher and Douglas.)						
Douglas & Co., Charles. (See Brode, Louis A., assignor.)						
Douglas, James, Jr. (See Hunt and Douglas.)						
Douglas, John and T. D., San Francisco, Cal. Preparation of lime-juice.....	228,881	June 15	897	-----	17	1381
Douglas, Thomas D. (See Douglas, John and T. D.)						
Douglass, John T., East Liverpool, Ohio. Cultivator-guard.....	235,140	Dec. 7	95	29	18	1297
Douglass, William H., assignor to J. Grant, Cleveland, Ohio. Apparatus for making illuminating-gas.....	227,502	May 11	479	137	17	1068
Dover, Samuel B., Sonora, Ga. Combined seed-planter, guano-distributor, cultivator, and cotton-chopper.....	235,219	Dec. 7	193	52, 53	18	1313
Dover Stamping Company. (See Foss, L. Bacon, assignor.)						
Dover Stamping Company. (See Gear, Samuel W., assignor.)						
Dover Stamping Company. (See Lesson, Philip, assignor.)						
Dover Stamping Company. (See Noyes, Josiah H., assignor.) (Reissue.)						
Dowd, Peter A., Boston, Mass. Electrical switch-board.....	233,081	Oct. 12	351	96	18	802
Dowe, William D. (See Blair, Llewellyn P., assignor.)						
Dowlin, Marshall R., North Adams, Mass. Gag-runner for harness.....	223,896	Jan. 27	841	225	17	174
Dowling, Patrick, et al. (See Merrill, George P., assignor.)						
Dowling, Thomas W., Detroit, Mich. Adjustable window-screen.....	229,032	June 22	1076	293	17	1416
Downes, Charles H., Jersey City, N. J. Stylographic fountain-pen.....	225,810	Mar. 23	991	284	17	656

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Name, residence, and invention	No.	Date.	Monthly volume.		Official Gazette.	
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Downes, Charles H. and C. L., Jersey City, N. J. Stylographic fountain-pen .....	229,980	July 13	545	152	18	99
Downes, Charles H., Jersey City, N. J. Stylographic fountain-pen .....	232,633	Sept. 28	913	251	18	697
Downes, Charles H., Jersey City, N. J. Stylographic fountain-pen .....	233,924	Nov. 2	110	30	18	1005
Downes, Charles H., Jersey City, N. J. Pencil-case .....	236,005	Dec. 28	1176	326	18	1500
Downes, Charles L. (See Downes, Charles H. and C. L.) .....						
Downes, Charles L. (See Fisher and Downes.) .....						
Downes, Charles L., Jersey City, N. J. Pencil-case .....	225,214	Mar. 9	275	78	17	517
Downes, Nicholas, Syracuse, N. Y. Filter .....	231,480	Aug. 24	1016	286	18	433
Downey, James. (See Witsil, Elias, assignor.) .....						
Downie, Robert M., Butler County, Pa. Well-drilling machine .....	228,737	June 15	716	197	17	1357
Downing, Clarence V. B., San Francisco, Cal. Automatic cut-off and governor .....	227,967	May 25	1039	296	17	1178
Downing, James, et al. (See Parker, Thomas, assignor.) .....						
Downing, William R., Murfreesborough, Tenn. Grubber .....	227,620	May 18	617	177	17	1101
Doyle, George F., Boston, Mass. Combined cradle and carriage .....	234,547	Nov. 16	892	239	18	1152
Doyle, James J., assignor to Palmer Sponge Moistening Company, New York, N. Y. Sponge-moistener .....	229,680	July 6	192	53	18	36
Doyle, John, Hoboken, N. J., assignor of one-half interest to C. C. Dusenbury, New York, N. Y. Galvanic battery .....	224,404	Feb. 10	497	143	17	304
Doyle, Thomas, San Francisco, Cal. Horseshoe-nail .....	233,334	Oct. 19	684	188	18	866
Dracke, Carl H. (See Reinhold, Heinrich, assignor.) .....						
Drain, Henry T., J. McClung, and E. G. Penrose, Tama City, Iowa. Device for feeding air to furnaces .....	226,603	Apr. 20	552	154	17	860
Drais, Peter, Washington Court-House, Ohio. Machine for making hog-rings .....	233,606	Oct. 26	1024	285	18	932
Drake, Albert A. (See Williams, Francis A., assignor.) .....						
Drake, Henry N. (See King and Drake.) .....						
Drake, Hiram R., Fort Atkinson, Wis. Air-pump .....	231,217	Aug. 17	735	206	18	379
Drake, James S. (See Campbell and Drake.) .....						
Drake, John H., Putnam, Ohio. Ballot-box .....	226,726	Apr. 20	687	191	17	882
Drake, Sereno A., Farmer Village, N. Y. Door-hanger .....	236,006	Dec. 28	1177	326	18	1500
Drake, Wear L., Chicago, Ill. Clay-tempering machine .....	229,810	July 13	356	99	18	69
Draper, Ellis D., Norwood, Mass. Anti-friction journal-box .....	223,639	Jan. 20	534	143	17	114
Draper, Ellis D., Norwood, Mass. Sheave .....	223,802	Jan. 27	728	197	17	156
Draper, Ellwood. (See Garretson and Draper.) (Reissue.) .....						
Draper, George, et al. (See Rabbeth, Francis J., assignor.) .....						
Draper, Henry C., and T. O. Bowyer, Oswego, Kans. Apparatus for retailing nails, &c. ....	235,753	Dec. 21	852	238	18	1438
Draper, Henry V. P., Hannibal, assignor of one-sixteenth interest to R. E. Williams and E. B. Wickenhauser, St. Louis, Mo. Treatment of petroleum lubricating-oil and lard-oil ..	228,181	June 1	23		17	1231
Draper & Sons, George. (See Carroll, William T., assignor.) .....						
Draper, Virgil, North Attleborough, Mass. Gem-setting. (Reissue) .....	J, 154	Apr. 13	517	145	17	844
Draper, William F. (See Allen, Nicholas I., assignor.) .....						
Draper, William F. (See Raworth, John S., assignor.) .....						
Dravo, Charles M., Allegheny, Pa. Soldering-iron .....	226,602	Apr. 20	551	154	17	860
Drawbaugh, Daniel, Eberly's Mill, assignor of two-thirds interest to E. W. Chellis, Harrisburg, Pa. Water-motor .....	225,577	Mar. 16	703	207	17	599
Drawbaugh, Daniel, Eberly's Mill, assignor of two-thirds interest to E. W. Chellis, Harrisburg, Pa. Rotary measuring-faucet .....	229,532	July 6	100	27	18	24
Dredge, Alfred, Brooklyn, N. Y. Hand ruling-pen .....	231,703	Aug. 31	1279	360	18	480
Dreher, Baptist, Cleveland, Ohio. Stringing piano-fortes .....	228,738	June 15	717	197	17	1357
Dreher, Hiram J., Philadelphia, Pa., assignor to himself, G. M. Wetmore, and C. H. Angel, Rochester, N. Y. Separating plumbago from its ores .....	235,858	Dec. 28	998		18	1471
Dreka, Louis, Philadelphia, Pa. Die-clamp for plate-printing presses .....	223,323	Jan. 6	140	35	17	25
Dresser, Solomon R., Bradford, Pa. Packing for Artesian wells .....	227,419	May 11	385	113	17	1051
Dresser, Thomas W., San José, Cal. Apparatus for condensing mercurial fumes .....	234,462	Nov. 16	792	213	18	1135
Drew, James W., Boston, Mass. Clothes-hook .....	224,003	Feb. 3	38	11	17	209
Drew, Renben W., Dayton, Ohio. Journal-bearing .....	226,907	Apr. 27	910	253	17	930
Drew, Walter J., Grandville, assignor to Michigan Carpet Sweeper Manufacturing Company, Grand Rapids, Mich. Carpet-sweeper .....	229,389	June 29	1485	408	17	1481
Drew, Walter J., assignor to Michigan Carpet Sweeper Company, Grand Rapids, Mich. Carpet-sweeper .....	232,698	Sept. 28	987	271	18	710
Drew, William P., Preston, Minn. Mechanical movement .....	233,335	Oct. 19	685	188	18	866
Drewes, Amandus T. (See Mamlok and Drewes.) .....						
Dreyfuss, Bernard, New York, N. Y. Picture-frame .....	232,471	Sept. 21	727	202	18	659
Drinkwater, Orlo H., Cedar Point, Kans. Car-coupling .....	225,578	Mar. 16	705	208	17	599
Drinkwater, Orlo H., Cedar Point, Kans. Car-coupling .....	226,727	Apr. 20	688	192	17	882
Drinkwater, Orlo H., Cedar Point, Kans. Grain-car-door fastening .....	226,728	Apr. 20	689	192	17	883
Driscoll, Edward M., Cincinnati, Ohio. Carriage-bow .....	232,601	Sept. 28	875	242	18	691
Driscoll, William, Brockville, Ontario, Canada. Animal-trap .....	223,324	Jan. 6	140	36	17	25
Drisko, Alonzo S., Boston, Mass. Camp-stool .....	223,321	Jan. 6	15	4	17	5
Drown, Otis E., Pawtucket, assignor of one-half interest to H. L. Fairbrother, Providence, R. I. Machine for working rawhides .....	229,981	July 13	546	152	18	99
Droz-Jeannot, Paul, Fils, Brenets, Neuchâtel, Switzerland. Stem-winding watch .....	233,336	Oct. 19	686	188	18	866
Drummond, David, Dubuque, Iowa. Shoe-clasp .....	230,759	Aug. 3	186	54	18	277
Drummond, George A. (See Gillespie, Walter, assignor.) .....						
Drummond, William W. (See Aikin and Drummond.) .....						
Dryden, George, Boston, Mass. Governor and safety appliance to elevators .....	233,841	Nov. 2	16	5	18	989
Dryfoos, Louis. (See Beck, August, assignor.) (Reissue.) .....						
Drysdale, William, Louisville, Ky. Watch-case spring .....	227,504	May 11	480	138	17	1068
Dubernet, Lucien, San Francisco, Cal. Photographic stand and album .....	226,445	Apr. 13	347	99	17	817
Du Bois, Frederic N., New York, N. Y. Machine for making plumbers' traps .....	233,337	Oct. 19	687	188	18	866
Du Bois, Frederic N., New York, N. Y. Machine for making plumbers' traps .....	233,338	Oct. 19	688	189	18	867
Du Bois, Frederic N., New York, N. Y. Machine for making plumbers' traps .....	234,463	Nov. 16	793	213	18	1135
Du Bois, James J., Springtown, N. Y. Wagon running-gear .....	223,897	Jan. 27	842	225	17	174
Du Bois, John, Du Bois, Pa. Radiator .....	228,616	June 8	551	146	17	1322
Du Bois, John, Williamsport, Pa. Dam and lock .....	229,682	July 6	193	53, 54	18	37
Du Bois, Pierre C., Copper City, Cal. Ore-crusher .....	223,281	Jan. 6	88	22	17	17
Du Bois, William C. (See Dennen, Du Bois, Gee, and Pettigrove.) .....						
Du Bose, John B. (See Quattlebaum, Bolivar J., assignor.) .....						
Dubruille, John J. (See Rubarts and Dubruille.) .....						
Du Brul, Napoleon, Cincinnati, Ohio. School-slate .....	225,215	Mar. 9	275	79	17	517
Du Brul, Napoleon, assignor to Miller, Du Brul & Peters Manufacturing Company, Cincinnati, Ohio. Cigar-mold .....	230,535	July 27	1241	350	18	225
Duc, Henry A., Jr., Charleston, S. C. Refrigerator .....	224,282	Feb. 10	360	103	17	282
Duchemin, William, assignor to C. F. Davis, Boston, Mass. Toy shuttlecock .....	227,884	May 25	939	269	17	1163
Duck, Francis R., Chicago, Ill. Manufacture of paper boxes .....	229,524	July 6	19	4	18	11



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Ducker, Henry W., New York, N. Y. Glove-fastening.....	234,005	Nov. 2	229	61	18	1023
Ducker, William A., Burgoyne, Ontario, Canada. Parallel ruler.....	233,737	Oct. 26	1172	326	18	957
Duckworth, John C., New York, N. Y., assignor, by mesne assignments, to G. Crompton, Worcester, Mass. Loom. (Reissue).....	9,270	June 29	1633	450	17	1501
Ducommun, Paul H., and C. V. Steinlen, Mulhouse, Alsace. Machinery for combing fibrous substances.....	224,428	Feb. 10	523	149 150 151 152	17	309
Ducournau, Léonce P., New Orleans, La. Motor.....	231,774	Aug. 31	1363	383	18	493
Düdeck, Hugo, assignor to E. Methlow & Co., Berlin, Prussia, Germany. Engine-lathe.....	230,253	July 20	886	251	18	169
Dudgeon, Alexander, Caledonian Road, Middlesex county, Great Britain. Steam-packing.....	232,011	Sept. 7	166	43	18	551
Dudley, George D. and D. Sherwood, assignors to Woods Sherwood & Co., Lowell, Mass. Bottle-stopper.....	223,325	Jan. 6	141	36	17	25
Dudley, George D., and S. Mansfield, assignors to Woods, Sherwood & Co., Lowell, Mass. Wire hinge.....	235,859	Dec. 28	999	277	18	1471
Dudley, George W., Waynesborough, Va., assignor of one-half interest to R. F. Way. Saw filing and setting machine.....	226,291	Apr. 6	165	47, 48	17	776
Dudley, George W., and W. J. Jones, Waynesborough, Va. Vehicle-wheel.....	233,219	Oct. 12	519	144	18	331
Dudley, George W., Waynesborough, Va. Rotary engine.....	236,907	Dec. 28	1178	326	18	1500
Dudley, Oliver J., <i>et al.</i> (See Willmeth, Charles S., assignor.)						
Dudley, Richard, <i>et al.</i> (See Hershey, Benjamin, assignor.)						
Dudley, Richard, and B. Hershey, assignors of one-third interest to F. M. Crane, Erie, Pa. Clothes-wringer.....	229,107	June 22	1157	317	17	1428
Dudley, Russel G., Jersey City, N. J. Shutter-worker.....	225,116	Mar. 2	161	46	17	484
Dudley, Walter J., Boston, Mass. Signal and switch apparatus for telephones.....	234,663	Nov. 23	1057	285	18	1186
Dueber, John C., Newport, Ky. Watch-case bow.....	229,681	July 6	192	53	18	36
Duenckel, Maria, St. Louis, Mo. Nursing-dress.....	232,246	Sept. 14	446	122	18	696
Duer, A. Adgate, Baltimore, Md. Caster.....	229,933	June 22	1076	294	17	1416
Duer, Douglas H., Baltimore, Md. Sash-cord guide.....	230,408	July 27	1095	308	18	201
Duff, James, Peoria, Ill. Casting metal.....	229,308	June 29	1388		17	1468
Duff, John T., Allegheny, assignor of one-half to W. M. Wagner, Pittsburg, Pa. Machine for flattening and sharpening plow-cutters.....	234,906	Nov. 2	230	61	18	1023
Duffey, Hugh, Cortland Village, N. Y. Tire-heating furnace.....	226,164	Apr. 6	19	5	17	749
Duffus, William. (See Maybee, M. Addie, assignor.)						
Duffy, James F., Chicago, Ill., assignor of one-fourth interest to J. Mooney, New York, N. Y., and J. L. Burleigh, Ann Arbor, Mich. Machine for coating sheet-iron or other metals with tin, &c.....	229,527	July 6	23	5, 6	18	11
Du Four, Joseph L. M., Boundbrook, N. J. Toy hoop.....	230,697	Aug. 3	117	34	18	266
Duggins, George G. (See Pulliam, Luther, assignor.)						
Duham, Constant, Denver, Colo. Machine for washing, sizing, and amalgamating gold and silver.....	224,406	Feb. 10	499	143	17	305
Duke, Patrick H., assignor to T. C. Williams, Richmond, Va. Plug-tobacco.....	231,922	Aug. 10	498	140	18	334
Duke, William, Longtown, assignor of one-half to E. G. Graham, Coldwater, Miss. Baling-press.....	234,549	Nov. 16	895	240	18	1153
Dumars, Horace, St. Louis, Mo. Device for hanging articles in windows.....	228,988	June 22	1029	280	17	1499
Dummer, Samuel R., New Brighton, N. Y. Bonds, notes, and other evidences of value.....	225,748	Mar. 23	916	266	17	644
Dumont, Fleury, Jr. (See Parker and Dumont.)						
Du Motay, Cyprien M. T., Paris, France, and L. F. Beckwith, New York, N. Y. Differential gas-motor.....	223,555	Jan. 13	421	113	17	87
Du Motay, Cyprien M. T., Paris, France, and A. I. Rossi, New York, N. Y. Production of cold in ice-machines, &c.....	224,246	Feb. 3	307		17	254
Du Motay, Cyprien M. T., Paris, France, and E. Stern, New York, N. Y. Process and apparatus for accelerating the distribution of gas.....	224,311	Feb. 10	394	111	17	293
Du Motay, Cyprien M. T., Paris, France, and L. F. Beckwith, New York, N. Y. Reaction and direct-action engine.....	225,245	Mar. 9	311	89	17	523
Du Motay, Cyprien M. T., Paris, France, and A. J. Rossi, New York, N. Y. Production of cold for manufacturing ice.....	228,488	June 8	395		17	1299
Du Motay, Cyprien M. T., Paris, France. Process and apparatus for producing hydrogen gas.....	229,338	June 29	1424	390 391	17	1472
Du Motay, Cyprien M. T., Paris, France. Process and apparatus for manufacturing hydrogen gas.....	229,339	June 29	1428	391 392	17	1473
Du Motay, Cyprien T., Paris, France, and A. J. Rossi, New York, N. Y. Refrigerating process and apparatus.....	228,487	June 8	392	109	17	1299
Du Motay, Cyprien T., Paris, France. Production of hydrogen gas.....	229,340	June 29	1429	393 394	17	1473
Du Motay, Cyprien T., assignor to E. Stern, New York, N. Y. Treating copper ores.....	234,212	Nov. 9	479	130 131	18	1075
Dunaway, Elijah F., Covington, Ky. Seed-planter.....	225,275	Mar. 9	340	99 100	17	528
Dunbar, G. Edwin, Kalamazoo, Mich. Harrow and cultivator.....	233,663	Oct. 26	1093	304	18	944
Dunbar, Robert, Buffalo, N. Y. Operating elevators.....	226,047	Mar. 30	1283	361	17	716
Dunbar & Son, R. (See Gardner, Frederick A., assignor.)						
Dunbar's Sons, G. W. (See Bartlett, Frederick W., assignor.)						
Duncan, Benjamin, and J. E. Leyden, Philadelphia, Pa. Type-form for electrotyping.....	223,584	Jan. 13	460	124	17	93
Duncan, John L. (See Webb and Duncan.)						
Dunham, Charles C. (See Dunham, George, assignor.)						
Dunham, Charles N., Philadelphia, Pa. Eyeglasses.....	233,738	Oct. 26	1173	326	18	957
Dunham, George, assignor to C. C. Dunham, Unionville, Conn. Nut-machine.....	231,956	Sept. 7	100	25, 26	18	549
Dunham, Isaac A., Brockton, Mass. Edge-plane for boots and shoes.....	224,769	Feb. 24	944	269	17	495
Dunham, Isaac A., Brockton, Mass. Cutter for sole or welt trimmers.....	235,075	Dec. 7	17	5	18	1283
Dunham, Oscar E., Brockton, Mass. Heel-shave.....	223,583	Jan. 13	458	124	17	92
Dunham, Thomas H., Boston, Mass. Making rope-yarns from cotton.....	227,885	May 25	940		17	1163
Dunkel, Oscar, Eureka, Nev. Vehicle device for hitching horses.....	226,653	Apr. 20	612	171	17	879
Dunlevy, Anthony C. (See Campbell and Dunlevy.)						
Dunlop, Robert, Jamesville, N. Y. Limekiln.....	229,811	July 13	356	99 100	18	69
Dunn, Charles W., assignor to himself and W. Saylor, Cleveland, Ohio. Machine for filing saws.....	233,739	Oct. 26	1174	326	18	957
Dunn, Edward, and R. H. Havener, Alexandria, Va. Spark-arrester.....	227,429	May 11	386	113	17	1052
Dunn, George, and R. A. Le Barron, North Wilbraham, Mass. Beating-engine for paper-pulp.....	233,839	Nov. 2	14	4	18	989
Dunn, Jefferson. (See Gray, Richard, assignor.)						
Dunn, Martin. (See Smith and Dunn.)						
Dunning, Almon S., Joliet, Ill. Lining furnaces. (Reissue).....	9,444	Nov. 2	348	95	18	1045



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Dunning, William B., Geneva, N. Y. Street-sweeper.....	229,390	June 29	1486	409	17	1481
Dunphy, Henry, New York, N. Y. Wash-board.....	234,007	Nov. 2	231	62	18	1023
Dunscomb, Daniel, New York, N. Y. Box.....	226,502	Apr. 13	422	118	17	828
Dunton, Charles H., Oakland, Cal. Cooking-stove.....	235,939	Dec. 28	1100	304	18	1487
Duparquet, Louis F., <i>et al.</i> (See Brisac, Salomon, assignor.)						
Dupee, John C., Decatur, Ill. Stop and wire for check-row wires.....	232,472	Sept. 21	728	202	18	659
Dupee, John C., and C. P. Housum, Decatur, Ill. Cali-weaner.....	235,860	Dec. 28	999	277	18	1471
Duplessis, Charles O. (See Duplessis, Odilon, assignor.)						
Duplessis, Odilon, assignor of one-half interest to C. O. Duplessis, Chicago, Ill. Exercising-machine.....	223,668	Jan. 20	566	153	17	119
Duplex Fiber Company. (See Finn and Archer, assignors.)						
Durand, Albert A., New York, N. Y. Cow-milking apparatus.....	223,491	Jan. 13	351	94	17	75
Durand, Louis, Quebec, Canada, assignor of one-half interest to D. H. Walker, New York, N. Y. Grinding-mill.....	224,664	Feb. 17	804	228	17	366
Durand, Louis, Quebec, Canada, assignor of one-half interest to D. H. Walker, New York, N. Y. Gas-engine.....	232,808	Oct. 5	14	4	18	741
Durand, Louis, Quebec, Canada. Dough-kneader.....	228,739	June 15	718	197	17	1357
Durant, Walter N., Milwaukee, Wis. Grain-heater.....	231,157	Aug. 17	651	184	18	366
Durant, Walter N., Milwaukee, Wis. Registering-machine.....	231,158	Aug. 17	652	185	18	366
Daret, James S., assignor to R. B. Runyan, Peru, Ind. Calculator.....	233,840	Nov. 2	15	4	18	989
Dargin, Thomas S., Worcester, Mass. Gage-chisel for wood-turning.....	232,634	Sept. 28	914	251	18	697
Durham, Caleb W., Chicago, Ill. House-drainage apparatus.....	235,754	Dec. 21	853	238	18	1438
Durie, William S., assignor to H. Timken, St. Louis, Mo. Carriage-seat.....	236,008	Dec. 28	1181	327	18	1501
Durning, Joseph S., Allegheny, assignor of two-thirds interest to R. S. Robertson, Pittsburgh, Pa. Post-hole auger.....	231,775	Aug. 31	1364	383	18	493
Duryea, Wright. (See Ennis, William, assignor.)						
Duryee, George, New York, N. Y., assignor to himself and J. H. Brewer, Trenton, N. J. Pottery, tile, and glass furnace.....	229,525	July 6	20	5	18	11
Duryee, George, New York, N. Y., assignor of one-half interest to J. H. Brewer, Trenton, N. J. Pottery-furnace.....	232,012	Sept. 7	166	43	18	551
Dusenbury, C. Coles. (See Doyle, John, assignor.)						
Dusenbury, C. Coles, New York, N. Y. Device for dividing glass.....	223,439	Jan. 13	287	76	17	65
Dusenbury, Harper, <i>et al.</i> (See Lamb, Charles, assignor.)						
Dusenbury, William W., Brooklyn, N. Y. Pump-valve.....	232,951	Oct. 5	187	50	18	769
Du Shane, James, South Bend, Ind. Lifting-jack.....	224,819	Feb. 24	1006	285	17	414
Dutcher Temple Company. (See Hamilton, Edward, assignor.)						
Dutcher Temple Company. (See Stimpson, Edward S., assignor.)						
Dutot, James. (See Wulsh and Dutot.)						
Dutrow, David E., Washington, D. C. Railway-track.....	229,526	July 6	21	5	18	11
Dutton, George E., Johnson's Creek, N. Y. Combined umbrella and cane.....	231,660	Aug. 31	1232	347	18	473
Dutton, Oscar. (See Fetterly and Dutton.)						
Dwinelle, James E., Baltimore, Md. Window-awning.....	231,548	Aug. 24	1094	307	18	444
Dwyer, Bernard J. (See Thiers, William F., assignor.)						
Dwyer, Denis R., Marshall Tex. Car-brake.....	230,181	July 20	791	223	18	146
Dwyer, Michael J., <i>et al.</i> (See Hickox, Francis Z., assignor.)						
Dwyre, Thomas, Kendall, Ill. End-gate.....	235,418	Dec. 14	440	124	18	1363
Dyer, Charles E., Malden, and W. Parsons, Medford, Mass. Hitching device.....	227,100	May 4	10	3	17	989
Dyer, David A., Ferndale, Cal. Submarine and surface wall.....	231,957	Sept. 7	106	26	18	541
Dyer, George W., <i>et al.</i> (See Hugentobler, Emil M., assignor.)						
Dyer, Nathan W., <i>et al.</i> (See Merrill, George P., assignor.)						
Dygart, Henry M., Pine township, Mercer county, Pa. Grain-measure.....	224,158	Feb. 3	209	61	17	238
Dyke, Elijah A. (See Terry and Dyke.)						
Eades, William and W. T., Birmingham, county of Warwick, England. Apparatus for raising weights.....	235,625	Dec. 21	706	200	18	1414
Eades, William T. (See Eades, William and W. T.)						
Eagle Lock Company. (See Mix, Frank W., assignor.)						
Eagle Manufacturing Company. (See Allison, Asa H., assignor.) (Reissue.)						
Eames, Elisha D., Watertown, N. Y. Noise-muffler.....	228,744	June 15	728	200	17	1358
Eames, Elisha D., Watertown, N. Y. Drip-cock valve for vacuum-brakes.....	228,745	June 15	730	201	17	1359
Eames, Elisha D., assignor to Eames Vacuum Brake Company, Watertown, N. Y. Slide-valve.....	233,489	Oct. 19	867	239 240	18	896
Eames, Frederick W., Watertown, N. Y. Vacuum-brake apparatus.....	228,740	June 15	719	197 198	17	1357
Eames, Frederick W., Watertown, N. Y. Vacuum-brake apparatus.....	228,741	June 15	721	198	17	1357
Eames, Frederick W., Watertown, N. Y. Air-ejector for vacuum-brakes.....	228,742	June 15	723	199	17	1358
Eames, Frederick W., Watertown, N. Y. Ejector for vacuum-brakes.....	228,743	June 15	725	200	17	1458
Eames, Henry H., San Francisco, Cal. Apparatus for burning hydrocarbons.....	224,886	Feb. 24	1078	309	17	426
Eames, Horace L., Bridgeport, Conn. Molding-machine.....	229,593	July 6	101	27	18	24
Eames Vacuum Brake Company. (See Bingham and Higham, assignors.)						
Eames Vacuum Brake Company. (See Eames, Elisha D., assignor.)						
Eardly, James W., Cascade, Mich. Hay-rack.....	232,014	Sept. 7	169	44	18	551
Earl & Co., W. D. (See Prevcarr, Herbert P., assignor.)						
Earl, Gardner, <i>et al.</i> (See Shaw, Charles H., assignor.)						
Earl, Gardner, <i>et al.</i> (See Wilson, Samuel W., assignor.)						
Earl, William S., <i>et al.</i> (See Shaw, Charles H., assignor.)						
Earl, William S., <i>et al.</i> (See Wilson, Samuel W., assignor.)						
Earle, John E., assignor to L. Candee & Co., New Haven, Conn. Overshoe.....	227,225	May 4	164	48	17	1004
Earle, Oscar T., Milford, Conn., assignor, by mesne assignments, to F. F. Raymond, 2d, trustee, Newton, Mass. Clamp for hose-couplings. (Reissue.).....	9,041	Jan. 13	513	138	17	101
Earle, Oscar T., Milford, Conn. Hose-band.....	224,586	Feb. 17	719	204 205	17	352
Earle, Oscar T., Milford, Conn., assignor to F. F. Raymond, 2d, trustee, Newton, Mass. Applying bands to hose, &c.....	225,216	Mar. 9	276	79	17	517
Earle, Timothy, Valley Falls, R. I. Apparatus for beating eggs.....	225,003	Mar. 2	24	7	17	461
Earle, Timothy, Valley Falls, R. I. Oil-can.....	230,760	Aug. 3	187	54	18	277
Earll, George D., New York, N. Y. Electric alarm for pressure-gages.....	226,165	Apr. 6	20	6	17	749
Earls, Samuel R., Ballston, N. Y. Stock-car.....	232,952	Oct. 5	188	50	18	769
Earnest, George H. (See Waters and Earnest.)						
Easley, John P., Harrisonville, Ky. Car-coupling.....	232,809	Oct. 5	15	4	18	741
Eason, Bolivar, Howard, Tex. Lamp or lantern.....	235,674	Dec. 21	758	215	18	1423
Eason, William J., Woodbury, Ga. Cotton-seed planter.....	232,015	Sept. 7	169	44	18	552
Easte, Charles H. and Charles H., Jr., Boston, Mass. Harness attachment.....	229,594	July 6	102	27	18	24
Easterbrooks, Stephen G., assignor of one-half interest to F. W. Parker, Providence, R. I. Button and stud.....	229,108	June 22	1159	317	17	1428

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Easterby, Anthony Y., Napa, Cal., assignor to California Portland Cement Company. Hydraulic cement.	230,865	Aug. 10	323	.....	18	308
Eastern Electric Manufacturing Company. (See Knowles, Edward R., assignor.)						
Eastern Electric Manufacturing Company. (See Sawyer, William, assignor.)						
Eastern Electric Manufacturing Company. (See Sawyer, William E. and W., assignors.)						
Eastern Electric Manufacturing Company. (See Stillman, Thomas B., assignor.)						
Eastern Paper Bag Company. (See Annan, Charles F., assignor.)						
Eastern Paper Bag Company. (See Chandler, Clarence A., assignor.)						
Eastern Paper Bag Company. (See Glover, Almon B., assignor.) (Reissue.)						
Eastern Paper Bag Company. (See Knight, Margaret E., assignor.) (Reissue.)						
Eastman, Andrew M., Somerville, assignor to Tucker Manufacturing Company, Boston, Mass. Joint for metallic furniture.	230,254	July 20	887	252	18	160
Eastman, Clarence E. (See Blinn, Erastus E., assignor.)						
Eastman, Clevenger A., Boston, Mass. Convertible chair	226,729	Apr. 20	690	192	17	883
Eastman, George, Rochester, N. Y. Method and apparatus for coating plates for use in photography.	226,503	Apr. 13	422	119	17	828
Eastman, George E., Muskegon, Mich. Seat for vehicles.	232,247	Sept. 14	447	123	18	606
Eastman, Joseph H., Boston, assignor, by mesne assignments, to G. Frost & Co., Newton, Mass. Clasp. (Reissue.)	9,194	May 11	597	171	17	1087
Eastman, Timothy C., New York, N. Y. Refrigerating apparatus	224,521	Feb. 17	634	183	17	338
Eastman, William F., et al. (See Kehr, Cyrus, assignor.)						
Easton, Denison M., Arcola, N. J. Finishing silk hats	235,141	Dec. 7	96	.....	18	1297
Eastwood, John. (See McClusky, Thomas, assignor.)						
Eastwood, Thomas C. (See Little and Eastwood.)						
Eatman, John H., Clinton, Ala. Animal-trap.	230,182	July 20	792	224	18	146
Eaton, Asahel K., Brooklyn, N. Y. Voltaic transmitting-telephone	223,718	Jan. 20	617	165	17	127
Eaton, Asahel K., Brooklyn, N. Y. Preparation of metallic lead	225,356	Mar. 9	449	.....	17	544
Eaton, Asahel K., Brooklyn, N. Y. Insulating telegraph-wires	225,811	Mar. 23	992	285	17	656
Eaton, Benjamin F., Cocksackie, N. Y. Spring-tooth for harrows	232,119	Sept. 14	290	82	18	580
Eaton, Benjamin F., Cocksackie, N. Y. Seed-dropper	232,177	Sept. 14	359	100	18	591
Eaton, Charles S., assignor to himself, C. C. Pickering, E. Lamson, and E. A. Thissell, Lowell, Mass. Electric call for telephones	228,047	May 25	1124	320	17	1191
Eaton, Frederick A. (See Harris, Ira F., assignor.)						
Eaton, George S., Brooklyn, N. Y. Flexible metallic binding	224,407	Feb. 10	500	144	17	305
Eaton, George S., Brooklyn, assignor to H. E. Taylor, New York, N. Y. Coffin-handle.	229,683	July 6	197	54	18	37
Eaton, Isaac. (See Hamilton, James, assignor.) (Reissue.)						
Eaton, Isaac, Nashua, N. H. Shuttle	231,288	Aug. 17	808	226	18	391
Eaton, Joseph B., Shamokin, Pa. Lozenge-machine	227,505	May 11	482	138	17	1068
Eaton, Leander, Worcester, Mass. Pea-sheller	227,886	May 25	941	{ 269 270 }	17	1163
Eaton, Leander, Worcester, Mass. Watch-regulator	235,940	Dec. 28	1101	304	18	1487
Eaton, Norman, Woburn, Mass. Steam-generator	228,250	June 1	106	32	17	1243
Eaton, Stephen A. (See Ennis, James, assignor.) (Reissue.)						
Eaton, Stephen A. (See Hight, Cornelius K., assignor.) (Reissue.)						
Eaton, Stephen A. (See Johnson, Charles C., assignor.) (Reissue.)						
Eaton, Thomas W. (See Beers and Eaton.)						
Eaton, Thomas W., Chicago, Ill. Machine for manufacturing barbed fence-wire	227,968	May 25	1040	{ 296 297 }	17	1178
Eaton, William W. (See Bnjac, James, assignor.)						
Eberhard, William, Akron, Ohio. Oatmeal-machine	224,283	Feb. 10	362	103	17	283
Eberhard, William, Akron, Ohio. Oatmeal-machine	228,520	June 8	431	118	17	1304
Eberhard, William, Akron, Ohio. Grain-drier	231,481	Aug. 24	1017	286	18	433
Eberle, Jacob, Madison, Ind. Side-saddle tree	223,843	Jan. 27	777	208	17	163
Eberly, David B., Boswell, Ind. Harrow	227,506	May 11	483	139	17	1068
Eberman, John R., Sandy Lake, Pa. Injector	225,749	Mar. 23	918	{ 266 267 }	17	644
Ebert, Lawrence W. (See Rhule, Jacob, Jr., assignor.)						
Ebright, George W., Waynesville, Ohio. Toy	223,719	Jan. 20	618	166	17	127
Ecaubert, Frederic, New York, N. Y. Paper-feeding machine	225,974	Mar. 30	1195	{ 339 340 }	17	702
Eccleston, Frank. (See Johnson and Eccleston.)						
Eckart, William E., and H. C. Behr, San Francisco, Cal. Hoisting-machine brake	231,776	Aug. 31	1365	{ 383 384 }	18	493
Eckart, William R., Virginia City, Nev. Air-compressor	224,081	Feb. 3	130	37	17	224
Eckert, Thomas T., et al. (See Hadden, William, assignor.)						
Eckford, John, San Antonio, Tex. Wood-screw	234,759	Nov. 23	1169	315	18	1203
Eckman, William L., New York, N. Y. Picture-frame	226,654	Apr. 20	613	171	17	870
Eclipse Windmill Company. (See Wheeler, William H., assignor.) (Reissue.)						
Eddleman, James P., Whitesborough, Tex. Fruit-gatherer	223,720	Jan. 20	619	166	17	127
Eddy, Ezra B. (See Millen, George H., assignor.)						
Eddy, George W., Waterford, N. Y. Whip-socket	231,412	Aug. 24	942	266	18	420
Eddy, George W., Plainville, assignor to himself, A. Turnbull, and J. A. Swanston, New Britain, Conn. Toy bank	232,699	Sept. 28	988	272	18	710
Eddy, John B., Stevens Point, Wis. Carpet-stretcher	224,887	Feb. 24	1080	309	17	426
Eddy, John F., Brunswick, (Raymertown P. O.) N. Y. Plant-duster	226,730	Apr. 20	690	192	17	383
Eddy, John F., Brunswick, (Raymertown P. O.) N. Y. Plant-duster	226,731	Apr. 20	692	193	17	883
Eddy, William H., Worcester, Mass. Machine for making machine-screws	228,989	June 22	1029	{ 281 282 }	17	1409
Edelen, William R., assignor of one-half interest to B. F. Brundred, Oil City, Pa. Polish-rod adjuster for oil and other wells	227,887	May 25	942	270	17	1163
Edelen, William R., Oil City, Pa. Bull-wheel for oil-wells	234,859	Nov. 30	1301	351	18	1231
Edelen, William R., assignor of one-half to B. F. Brundred, Oil City, Pa. Sand-pump reel	236,009	Dec. 28	1181	327	18	1501
Edey, Henry F., Bridgeport, Island of Barbadoes. Plow	234,008	Nov. 2	231	62	18	1024
Edge, William C., Newark, N. J. Bracelet	223,669	Jan. 20	567	153	17	119
Edge, William C., Newark, N. J. Chain fabric for bracelets	228,746	June 15	731	201	17	1359
Edgerly, Samuel H., Jackson, Mich. Equalizing-trap for lubricators for steam-engines	224,159	Feb. 3	210	61	17	238
Edgett, Stephen H. (See Kearcher and Edgett.)						
Edison, Thomas A., Menlo Park, N. J. Electric lamp	223,898	Jan. 27	843	225	17	174
Edison, Thomas A., Menlo Park, N. J. Electric lighting apparatus	224,329	Feb. 10	412	117	17	291
Edison, Thomas A., Menlo Park, N. J. Preparing autographic stencils for printing	224,665	Feb. 17	805	228	17	366
Edison, Thomas A., Menlo Park, N. J. Safety-conductor for electric lights	227,226	May 4	165	49	17	1005
Edison, Thomas A., Menlo Park, N. J. Electric light	227,227	May 4	166	49	17	1005
Edison, Thomas A., Menlo Park, N. J. Electric light	227,228	May 4	168	49	17	1005
Edison, Thomas A., Menlo Park, N. J. Electric light	227,229	May 4	169	49	17	1005

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Edison, Thomas A., Menlo Park, N. J. Phonograph.....	227,679	May 18	683	195	17	1111
Edison, Thomas A., Menlo Park, N. J. Magnetic ore-separator.....	228,329	June 1	197	55	17	1259
Edison, Thomas A., Menlo Park, N. J. Brake for electro-magnetic motors.....	228,617	June 8	552	147	17	1322
Edison, Thomas A., Menlo Park, N. J. Manufacturing electric lamps.....	230,255	July 20	887	252	18	160
Edison, Thomas A., Menlo Park, N. J. Addressing-machine.....	230,621	Aug. 3	29	8	18	251
Edison, Thomas A., Menlo Park, N. J. Electro-chemical receiving-telephone.....	231,704	Aug. 31	1280	360	18	480
Edison, Thomas A., Menlo Park, N. J., assignor to Western Union Telegraph Company, New York, N. Y. Acoustic telegraph.....	235,142	Dec. 7	97	29	18	1297
Edleblute, Lucius S., Cincinnati, Ohio. Vehicle-wheel hub.....	226,990	Apr. 27	1012	281	17	945
Edleblute, Lucius S., assignor of one-half to O. E. Walker, Cincinnati, Ohio. Thill-coupling.....	234,760	Nov. 23	1169	315	18	1203
Edmonds, Edmund C., Albany, N. Y. Game apparatus.....	232,016	Sept. 7	170	44	18	552
Edmondson, Eli S. (See Ellis, Scott, and Edmondson.)						
Edmonston, Gabriel. (See Barker and Edmonston.)						
Edson, Jacob, assignor to A. N. Cook, Boston, Mass. Hammock-support.....	224,178	Feb. 3	235	69	17	242
Edson, Jacob, Boston, Mass. Edge-setting machine.....	233,842	Nov. 2	21	5	18	990
Edson, Jacob, Boston, Mass. Diaphragm ship's pump.....	234,551	Nov. 16	897	241	18	1153
Edson, Julius T., Cleveland, Ohio. Printer's type-case.....	228,251	June 1	108	32	17	1244
Edson, Julius T., Cleveland, Ohio. Printer's type-case.....	231,289	Aug. 17	809	227	18	391
Edwards, Alfred, New Haven, assignor to G. R. Hoppen, Birmingham, Conn. Apparatus for preparing fertilizers.....	229,876	July 13	433	119	18	81
Edwards, Alfred, New Haven, Conn. Drying-machine.....	234,860	Nov. 30	1303	351	18	1232
Edwards, Alfred W., New York, N. Y. Combined dental speculum and shield.....	226,989	Apr. 27	1011	280	17	945
Edwards, Charles D., Albert Lea, Minn. Ditching-machine.....	225,579	Mar. 16	706	208	17	599
Edwards, George H., Chicago, Ill. Traction-truck.....	232,395	Sept. 21	632	175	18	644
Edwards, John. (See Leak and Edwards.)						
Edwards, John R., Liverpool, England, assignor to G. B. Prescott, New York, N. Y. Telegraphic sounder.....	231,290	Aug. 17	810	227	18	392
Edwards, Joseph. (See Morand and Edwards.)						
Edwards, Joseph, New York, N. Y. Apparatus for purifying and cooling air.....	226,908	Apr. 27	911	254	17	930
Edwards, J. W. (See Lindsay, William G., assignor.)						
Effer, Wilhelm, Berlin, Germany. Apparatus for lighting and extinguishing gas-burners by automatic means.....	236,010	Dec. 28	1183	327	18	1501
Egan, James H., St. Johnsville, N. Y. Cone attachment for stoves.....	229,684	July 6	198	55	18	36
Egan, John M., et al. (See Needles, James H., assignor.)						
Egan, Kieran. (See Fox, Edward, assignor.)						
Egasse, Eugene E., Paris, France. Apparatus for producing hydrogen gas.....	229,034	June 22	1077	294	17	1416
Egbert, Major B., Vanlue, Ohio. Railway-rail.....	226,048	Mar. 30	1284	362	17	716
Egberts, Heinrich. (See Kamin and Egberts.)						
Ege, Alexander H. (See Dodson, Wilson P., assignor.)						
Ege, Alexander H. (See Ray, Richard, assignor.)						
Ege, Alexander H. (See Walters, Charles D., assignor.)						
Ege, Alexander H., Mechanicsburg, Pa., assignor of one-half interest to R. Ray, Lake City, Fla. Umbrella.....	229,685	July 6	199	55	18	37
Egerton, C. Calvert, assignor of one-half interest to B. G. Harris, Baltimore, and W. Canby, Baltimore County, Md. Thill-coupling.....	224,408	Feb. 10	501	144	17	305
Egerton, C. Calvert, assignor to Safety Axle and Top Standard Company, Baltimore, Md. Top for baby-carriages.....	230,930	Aug. 10	393	114	18	318
Egge, Frederick, assignor to Smith & Egge Manufacturing Company, Bridgeport, Conn. Piano-lock.....	230,866	Aug. 10	324	95	18	308
Eggleston, Hiram C. (See Spencer and Eggleston.)						
Egleston, Lorenzo. (See Gage, Eggleston, and Spaulding.)						
Egner, Frederic, Norfolk, Va. Price-indicator for gas or fluid meters.....	226,292	Apr. 6	168	48	17	776
Egner, Frederic, Norfolk, Va. Regulator for exhaustors of gas-retorts.....	230,699	Aug. 3	119	35	18	266
Ehle, Alonzo W., Canajoharie, N. Y. Nose-ring for animals.....	234,861	Nov. 30	1304	352	18	1232
Ehlers, Henry. (See Maillfert, Benjamin, assignor.)						
Ehrhardt, Louis H. G., Philadelphia, Pa., C. H. Brutton, administrator. Making artificial parchment or toughening paper.....	228,328	June 1	196	.....	17	1259
Ehrlich, Edward, assignor to L. M. Bates, J. H. Reed, and M. I. Cooley, New York, N. Y. Coverlet for holding and exhibiting faces, &c.....	233,490	Oct. 19	869	240	18	896
Eichbaum, Henry, assignor of two-thirds interest to F. O. Herring, J. Farrel, and E. T. Sherman, New York, N. Y. Burglar-proof safe.....	224,409	Feb. 10	502	144	17	305
Eichberg, Otto F., New York, N. Y., assignor to Bridgeport Brass Company, Bridgeport, Conn. Hanging-lamp.....	226,732	Apr. 20	694	193	17	883
Eickemeyer Felting Company. (See Eickemeyer, Rudolf, assignor.) (Reissue.)						
Eickemeyer, Rudolf, Yonkers, N. Y., assignor to Eickemeyer Felting Company. Fulling-mill. (Reissue.)	9,146	Apr. 13	504	{ 142 143 }	17	841
Eickemeyer, Rudolf, Yonkers, N. Y. Sewing sweat-linings into hats. (Reissue.)	9,392	July 27	1323	372	18	239
Eickemeyer, Rudolf, Yonkers, N. Y. Speaking-telephone.....	230,698	Aug. 3	118	34, 35	18	266
Eils, B. Edward J. (See Portner and Eils.)						
Eimbeck, Conrad, and F. Wehrmann, New Haven, Mo. Coupling for vehicle-axles.....	232,473	Sept. 21	729	202	18	659
Eimkenel, Friedrich A., Nendörfel, and C. O. Müller, Zwickau, Germany. Water-meter.....	231,958	Sept. 7	107	26	18	541
Eisen, Hermann J., assignor to A. Frankfeld, Geneva, Switzerland. Stem winding and setting watch.....	235,941	Dec. 28	1102	305	18	1487
Elam, Joel, T. P., and J. A., Greenville, Ill. Sulky-plow.....	224,820	Feb. 24	1006	285	17	414
Elam, John A. (See Elam, Joel, T. P., and J. A.)						
Elam, Thomas P. (See Elam, Joel, T. P., and J. A.)						
Elayer, Edward, St. Louis, Mo. Ditching-machine.....	229,878	July 13	436	120	18	81
Elcock, Joseph, Mechanicsburg, Pa. Plow.....	231,778	Aug. 31	1367	{ 384 385 }	18	494
Eldredge, John V. D., Detroit, Mich. Sewing-machine shuttle.....	232,248	Sept. 14	417	123	18	606
Electro Dynamic Light Company. (See Sawyer and Man, assignors.)						
Elfelt, Alfred P., et al. (See Krouse, Samuel R., assignor.)						
Elfelt, Augustus B., et al. (See Krouse, Samuel R., assignor.)						
Eliot, John B., New York, N. Y. Ventilating and refrigerating cars.....	223,640	Jan. 20	534	{ 143 144 }	17	114
Ell, Frederic, assignor to H. Wendriner; said Wendriner assignor of one-fourth interest to G. Mason and one-half interest to Cincinnati Tin and Japan Company, Cincinnati, Ohio. Lamp for stoves, &c.....	227,156	May 4	83	22	17	991
Ellacott, Joseph P., assignor to Union Brass Manufacturing Company, Chicago, Ill. Clothes-dampener.....	234,118	Nov. 9	363	100	18	1054
Ellacott, Joseph P., assignor to Union Brass Manufacturing Company, Chicago, Ill. Starching-machine.....	234,119	Nov. 9	365	100	18	1054
Eller, Homer C. (See Farnam, Harriet A., assignor.)						
Ellery, Charles, Albany, N. Y. Collating attachment for printing-presses.....	226,604	Apr. 20	553	154	17	861

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Ellery, William H., Burlington, Iowa. Coin-purse.....	234,009	Nov. 2	232	62	18	1024
Ellinwood, Marvin T., <i>et al.</i> (See Calkins, David N., assignor.)						
Ellinwood, Warren J., <i>et al.</i> (See Walsh, James F., assignor.)						
Elliot, John W., Toronto, Ontario, Canada. Machine for grinding mower and reaper knives.....	233,082	Oct. 12	352	97	18	803
Elliot, William H., New York, N. Y. Magazine fire-arm.....	224,522	Feb. 17	635	183	17	338
Elliot, William H., New York, N. Y. Magazine fire-arm.....	225,750	Mar. 23	920	267	17	644
Elliot, William H., New York, N. Y. Magazine fire-arm.....	229,812	July 13	357	100	18	69
Elliot, William H., New York, N. Y. Magazine fire-arm.....	232,178	Sept. 14	360	100	18	591
Elliot, Anthony M., Kenosha, Wis. Breakwater and pier.....	230,537	July 27	1244	350	18	225
Elliot, James F., Princeton, Ill. Watering-trough for stock.....	226,227	Apr. 6	90	25	17	762
Elliot, John T., Grand Rapids, Mich. Fire-kindler.....	235,756	Dec. 21	858	239	18	1439
Elliot, Milo A., Stratford Hollow, N. H. Plow.....	231,218	Aug. 17	735	206	18	379
Elliot, Richard C., trustee. (See Lyall, James, assignor.) (Reissue.)						
Elliot, Robert W. (See Leonard, Harvey R., assignor.)						
Elliot, Silas G. (See June, Solomon, assignor.)						
Elliot, Theodore C., East Orange, N. J. Corn-husking roller.....	234,120	Nov. 9	366	101	18	1054
Elliot, William T., assignor to Gold Medal Sewing Machine Company, Orange, Mass. Combined plaiter and ruffler.....	229,877	July 13	435	120	18	81
Ellis, Charles, Canton, Mass. Mechanism for cleaning and polishing thread.....	229,686	July 6	200	53	18	37
Ellis, Ephraim, assignor of one-half interest to G. J. Wright, Waubeck, Iowa. Hog and cattle vat.....	225,514	Mar. 16	637	186	17	586
Ellis, Frederick L., Milldale, Conn. Spring-tweezers.....	227,680	May 18	685	195	17	1111
Ellis, James H., A. Scott, and E. S. Edmondson, Goderich, Ontario, Canada. Chop-conveyer for millstones.....	224,410	Feb. 10	505	145	17	306
Ellis, John, assignor to Ellis Keystone Agricultural Works, Pottstown, Pa. Thrashing-machine.....	230,536	July 27	1242	350	18	225
Ellis, John D., Sheffield, England. Armor-plate and method of producing the same.....	232,476	Sept. 21	732	204	18	660
Ellis Keystone Agricultural Works. (See Ellis, John, assignor.)						
Ellis, Stephen K., Waltham, Mass. Clasp for stocking-supporters. (Reissue.).....	9,506	Dec. 21	971	269	18	1459
Ellis, Washington L., Prattville, Ala. Cotton-gin.....	223,721	Jan. 20	620	166	17	128
Ellis, William C., Worcester, Mass. Piano-string bridge. (Reissue.).....	9,237	June 8	680	187	17	1342
Ellithorpe, Albert C., Chicago, Ill. Elevator.....	229,982	July 13	547	152	18	99
Ellich, Robert C., and G. S. Allen, Southington, Conn. Making jointed metal rings.....	232,475	Sept. 21	731	203	18	659
Ells, Josiah W., assignor to R. E. Breed, Pittsburg, Pa. Hoe.....	226,050	Mar. 30	1286	362	17	717
Ells, Josiah W., assignor to R. E. Breed, Pittsburg, Pa. Manufacture of hand-rakes.....	226,051	Mar. 30	1286	362	17	717
Ellsworth, Perry G. (See Morris, Henry B., assignor.)						
Ellsworth, T. Gardner, New York, N. Y. Telephone switch-board.....	226,991	Apr. 27	1013	281	17	946
Ellwood, Reuben, Sycamore, Ill. Wire-tightener.....	229,983	July 13	548	152	18	99
Elmendorf, Frederick F. (See Westerfield, William C., assignor.)						
Elmendorf, John P. (See Conover, Stephen B., assignor.)						
Elmenhorst, Walter R., Montreal, Canada. Kiln for drying and revivifying bone-black.....	235,942	Dec. 28	1103	305	18	1488
Elmer, Charles H., assignor to Gale Manufacturing Company, Albion, Mich. Casting plow-points, &c.....	231,777	Aug. 31	1366	384	18	493
Elmer, Edwin R. (See Elmer, John H. and E. R.)						
Elmer, John H., Ashfield, and E. R. Elmer, Buckland, Mass. Gearing for churn-powers.....	229,391	June 29	1487	409	17	1481
Elmer, William W., Bay City, Mich. Manufacture of salt.....	235,143	Dec. 7	98	29	18	1298
Elsherry, Frank S., Montgomery, Ala. Attachment for fire-places.....	226,992	Apr. 27	1014	281	17	946
Elsey, George, Springfield, Mass. Slate-cleaner.....	231,482	Aug. 24	1018	286	18	433
Elverson, Sherwood & Co. (See Elverson, William H., assignor.)						
Elverson, William H., New Brighton, Pa., assignor to Elverson, Sherwood & Co. Earthen-ware vessel.....	233,664	Oct. 26	1094	304	18	944
Elward, John H., Stillwater, assignor to St. Paul Harvester Works, St. Paul, Minn. Harvester. (Reissue.).....	9,179	Apr. 27	1149	314	17	966
Elward, John H., Stillwater, Minn. Horse-power.....	227,745	May 18	767	216	17	1123
Elward, John H., Stillwater, Minn. Thrashing-machine.....	230,622	Aug. 3	29	8, 9	18	252
Elward, John H., Stillwater, Minn. Steam-boiler.....	232,249	Sept. 14	448	123	18	606
Elward, John H., Stillwater, Minn. Thrashing-machine.....	234,971	Nov. 30	1440	387	18	1254
Elward, John H., Stillwater, Minn. Steam-boiler.....	236,011	Dec. 28	1185	328	18	1501
Elwell, Henry H., South Norwalk, Conn. Match-safe.....	228,452	June 8	344	52	17	1292
Elwood, John J., Cleveland, Ohio. Device for cleaning overflows of wash-basins, &c.....	233,741	Oct. 26	1176	327	18	958
Elwood, Reuben. (See Neff, Joseph B., assignor.)						
Ely, Edmund F., Santa Rosa, Cal. Drying apparatus.....	229,103	June 22	1160	317	17	1428
Ely, Ellsworth, Lockport, N. Y. Anti-rattler for thill-couplings.....	225,975	Mar. 30	1198	340	17	703
Ely, Horatio, Jr., Red Bank, N. J. Railway signaling apparatus.....	235,755	Dec. 21	855	239	18	1438
Ely, H. W., <i>et al.</i> (See Morgan, Hubert W., assignor.)						
Ely, William I., Detroit, Mich. Hatchway-door mechanism.....	227,421	May 11	386	113	17	1052
Ely, William I., Detroit, Mich. Hatchway-guard.....	228,747	June 15	732	201	17	1359
Ely, William I., Freehold, N. J. Cornstalk-harvester.....	232,474	Sept. 21	730	203	18	659
Ely, William I., Freehold, N. J. Car-coupling.....	234,550	Nov. 16	896	240	18	1153
Elzey, Samuel B., Atlanta, Ga. Gate-latch.....	225,580	Mar. 16	707	208	17	600
Emack, Francis. (See Brown, Morgan W., assignor.)						
Embossing Company. (See Hyatt, John W., assignor.)						
Embossing Company. (See Pruyn and Hyatt, assignors.)						
Emerick, William H., near Hamilton, Ohio. Hog-cholera remedy.....	233,083	Oct. 12	353	-----	18	803
Emerson, Daniel L., Rockford, Ill. Harvester-rake.....	230,867	Aug. 10	324	95	18	308
Emerson, Fisher & Co. (See Ransom, Hiram W., assignor.)						
Emerson, George, Gambier, Ohio. Subterranean water cooler and purifier.....	228,618	June 8	553	147	17	1322
Emerson, George E., San Francisco, Cal. Hand-stamp.....	224,666	Feb. 17	806	229	17	366
Emerson, George W., Afton, Iowa. Metallic guard for book-covers.....	230,256	July 20	829	252	18	161
Emerson, James F., Wakefield, Mass. Card-holder.....	227,507	May 11	484	139	17	1068
Emerson, Lowe, College Hill, and J. W. S. Fisher, Cincinnati, Ohio. Vehicle-bow.....	232,117	Sept. 14	289	81	18	579
Emerson, Orlando S., <i>et al.</i> (See Griswold, John, assignor.)						
Emerson, Orlando S., assignor to himself and J. S. Graham; said Emerson and Graham assignors of one-half interest to J. Griswold and H. J. Burton, Elkhart, Ind. Steam-valve.....	233,491	Oct. 19	869	240	18	896
Emerson, Ralph. (See Jones and Emerson.)						
Emerson, Talcott & Co. (See Jones and Emerson, assignors.)						
Emerton, Edward W., West Meriden, Conn. Blow-pipe.....	223,326	Jan. 6	143	36	17	26



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Emery, Charles G. (See Emery, William H., assignor.)						
Emery, Charles G. and W. H., Brooklyn, N. Y.; said W. H. Emery assignor to said } Charles G. Emery. Cigarette-machine.....	231,779	Aug. 31	1368	{ 385 386 387 }	18	494
Emery, John A., Boston, Mass. Dress-maker's square.....	226,605	Apr. 20	554	155	17	861
Emery, John A., assignor of one-fourth to T. E. Stuart, Boston, Mass. Pneumatic signal } for railways.....	234,552	Nov. 16	899	{ 241 242 }	18	1153
Emery, Samuel, South Toledo, Ohio. Car-brake.....	231,291	Aug. 17	811	227	18	392
Emery, William H. (See Emery, Charles G. and W. H.)						
Emery, William H., assignor to C. G. Emery, Brooklyn, N. Y. Machine for slitting cigar- ettes.....	231,780	Aug. 31	1373	387	18	495
Emery, William H., assignor to C. G. Emery, Brooklyn, N. Y. Tobacco-cutting machine..	233,220	Oct. 12	521	{ 144 145 }	18	831
Emmel, John, Cranberry township, Butler county, Pa. Combined pole and harness.....	228,453	June 8	345	95	17	1292
Emmerich, Justus H., New York, N. Y. Pointed trimming or edging.....	229,309	June 29	1390	380	17	1468
Emmerson, William, Cleveland, Ohio. Drive-chain.....	230,761	Aug. 3	188	55	18	277
Emmert, Ezra, Dixon, Ill. Combined seed-sower and cultivator. (Reissue).....	9,518	Dec. 28	1341	367	18	1527
Emmert, John, Rockford, Ill. Egg-beater.....	225,693	Mar. 23	853	247	17	634
Emmert, William P., Freeport, Ill. Elastic check-rein holder.....	223,440	Jan. 13	288	76	17	65
Engel, David L., Washington, D. C. Corset-cover.....	232,477	Sept. 21	733	204	18	660
Engelken, Frederick, Brooklyn, Cal. Bung and faucet.....	233,740	Oct. 26	1175	327	18	958
Engert, Adam C., Bromley-by-Bow, England. Device for refracting, re-enforcing, and modu- lating sound.....	231,292	Aug. 17	812	227	18	392
Engle, David E., Jacksonville, (Wind Ridge P. O.), Pa. Combined forge and steam-boiler..	227,744	May 18	767	216	17	1123
Englebeek, Winfield J. (See Keller, Moses A., assignor.)						
English, Analdo M., Providence, R. I. Device for bending wire for jewelry manufacture...	224,604	Feb. 3	39	11	17	209
English, Henry R. (See O'Connor, James, assignor.)						
English, Lewis H. (See Hoyt, Lewis S., assignor.)						
English & Mersick. (See Osborn, Oliver S., assignor.)						
English, Nathan, et al. (See Marvin, Luke, assignor.)						
English, William J., Cohoes, N. Y. Card-screen.....	233,221	Oct. 12	522	145	18	831
Ennis, George H., Troy, N. Y. Machine for preparing paper-pulp.....	225,976	Mar. 30	1198	340	17	703
Ennis, James, deceased, J. A. Frazer and R. A. Ennis, administrators, and assignors to S. A. Eaton, Hudson, Mich. Wheelbarrow. (Reissue).....	9,395	Oct. 5	318	88	18	790
Ennis, R. A., et al., administrators. (See Ennis, James.) (Reissue).....						
Ennis, William, Brooklyn, assignor to himself and W. Duryea, Glen Cove, N. Y. Boiler and other furnaces.....	234,972	Nov. 30	1443	388	18	1255
Eno, Joseph A., assignor to I. W. Conselyea, Newark, N. J. Trunk.....	232,885	Oct. 5	111	29	18	756
Eno, Joseph A., assignor to I. W. Conselyea, Newark, N. J. Trunk-catch.....	235,757	Dec. 21	858	239	18	1439
Enos, Charles, et al. (See Enos, George P., assignor.)						
Enos, George P., assignor of two-thirds interest to N. Aldrich and C. Enos, Gouverneur, N. Y. Wood-pulp machine.....	230,471	July 27	1175	331	18	214
Enos, Levi S., Almond, N. Y. Axle-lubricator.....	234,258	Nov. 9	529	145	18	1083
Ensign, Charles A., assignor to Goodyear's Metallic Rubber Shoe Company, Naugatuck, Conn. Water-proof boot and shoe.....	231,293	Aug. 17	813	228	18	392
Ensign, Charles A., assignor to Goodyear's Metallic Rubber Shoe Company, Naugatuck, Conn. India-rubber boot.....	231,294	Aug. 17	814	228	18	392
Enterprise Manufacturing Company of Pennsylvania. (See Baker, John G., assignor.)						
Enterprise Manufacturing Company et al. (See Potts, Mary F., assignor.) (Reissue).....						
Entwistle, Thomas C., Milford, Mass. Stop mechanism for warping-machines. (Reissue)...	9,319	July 27	1314	371	18	238
Eneyart, Richard H. C., La Gro, Ind. Corn-planter.....	228,332	June 1	200	55, 56	17	1259
Epeneter, John, and B. Grahl, Council Bluffs, Iowa, assignors to J. M. Gorham. Wash- board. (Reissue).....	9,022	Jan. 6	251	67	17	46
Ephraim, Ephraim E. (See Harris, David, assignor.)						
Ephraim, Ferdinand, Bodie, Cal. Watch-case.....	233,405	Oct. 19	772	212	18	880
Epplshheimer, William, San Francisco, Cal. Wire-cable railway.....	224,284	Feb. 10	363	104	17	283
Epperson, David A., Haubstadt, Ind. Shaft-support for vehicles.....	226,049	Mar. 30	1285	362	17	716
Eppler, Wilhelm F., Herrstein, Germany. Book-holder.....	231,295	Aug. 17	815	228	18	392
Erdman, Edward M., Lykens, Pa. Fruit-jar.....	226,606	Apr. 20	556	155	17	861
Erdmann, Conrad, Duisburg-on-the-Rhine, Prussia, Germany. Rolling-mill.....	232,602	Sept. 28	876	243	18	691
Erdmann, Julius, Milwaukee, Wis. Bottle-stopper.....	229,595	July 6	103	27	18	24
Erickson, Daniel, Chicago, Ill. Awning-fastener.....	228,990	June 22	1037	282	17	1410
Erickson, Israel, Whitehall, Mich. Furnace-feeder.....	230,257	July 20	889	252	18	161
Ericsen, John, assignor to C. H. Delamater and G. H. Robinson, New York, N. Y. Air- engine.....	226,052	Mar. 30	1289	363	17	717
Ericsen, John, assignor to C. H. Delamater and G. H. Robinson, New York, N. Y. Air- engine. (Reissue).....	9,414	Oct. 12	659	{ 181 182 }	18	855
Erikson, Christian, Chicago, Ill. Bureau.....	230,538	July 27	1245	351	18	226
Erk, Christian, Seelyville, Pa. Polishing round wooden rods.....	223,722	Jan. 20	621	166	17	128
Ertel, George, Quincy, Ill. Hay-press.....	227,681	May 18	686	195	17	1111
Ervin, Dabney L., Crawfordsville, Miss. Stove.....	225,812	Mar. 23	994	285	17	656
Erwin, James B., and H. Van Altena, Milwaukee, Wis.; said Van Altena assignor to said Erwin. Transparent chromatope.....	233,084	Oct. 12	354	97	18	803
Erwin, Lambert B., Fenton, Ill. Fence.....	232,250	Sept. 14	450	124	18	607
Escherich, Hermann, Schwandorf, Germany. Kiln for burning bricks, pottery, &c.....	223,585	Jan. 13	460	125	17	93
Escherich, Hermann, Schwandorf, Bavaria, Germany. Kiln for burning brick, pottery, &c.	228,331	June 1	198	55	17	1259
Eshner, Louis, Philadelphia, Pa. Neckscarf.....	227,230	May 4	171	50	17	1005
Esper, William B., Spring Garden, Jamaica, West Indies. Rotary engine or pump.....	232,017	Sept. 7	171	45	18	552
Espérandien, Emile F., Nashville, assignor to E. Bolli, Knoxville, Tenn. Tricycle.....	226,504	Apr. 13	424	119	17	829
Espeig, Wilhelm, assignor to M. Hess, Berlin, Germany. Billiard-table.....	235,419	Dec. 14	441	125	18	1363
Essex, David, Corona, N. J. Corset-clasp.....	235,144	Dec. 7	100	29	18	1298
Estabrook, Alanson C., assignor to Florence Manufacturing Company, Northampton, Mass. Manufacture of rubber backs for wire brushes.....	223,844	Jan. 27	778	208	17	164
Estabrooks, William B., Eau Claire, Wis. Elastic tip for chair-legs.....	233,843	Nov. 2	22	6	18	990
Estephe, Victor, Philadelphia, Pa. Billiard-table chuck.....	235,861	Dec. 28	1000	277	18	1471
Estes, George, assignor, by mesne assignments, of one-half interest to Whitehead & Ather- ton Machine Company, Lowell, Mass. Carding-machine. (Reissue).....	9,457	Nov. 9	684	185	18	1109
Estes, John W., Harrison, Ark., and W. H. Buckley, Springfield, Mo. Permutation-pad- lock.....	228,619	June 8	555	147	17	1322
Estes, William A., Fairfield, Me. Plow.....	230,623	Aug. 3	31	9	18	252
Estey & Co., J. (See Fuller, Levi K., assignor.)						
Ethridge, Martin V. B., Boston, assignor, by mesne assignments, to G. W. Copeland, Mal- den, Mass. Machine for finishing boot-legs. (Reissue).....	9,098	Feb. 24	1184	339	17	444
Etter, Henry B., Heratio, Ohio. Spring-coupling.....	226,446	Apr. 13	348	100	17	817



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Eubank, Reuben B., Jr., Slater, Mo. Car-coupling.....	229,241	June 29	1299	358	17	1457
Eutebrouk, Charles H., Cambridge, Mass. Breech-loading fire-arm.....	230,409	July 27	1096	308	18	201
Evans, Anderson. (See Creager and Evans.)						
Evans, Austin C. (See Bennett, Roswell N., assignor.) (Reissue.)						
Evans, Austin C., J. M., and L. C., Springfield, Ohio. Harrow.....	223,492	Jan. 13	353	94	17	75
Evans, Austin C., Springfield, Ohio. Harrow.....	225,694	Mar. 23	853	248	17	634
Evans, Benjamin. (See Lewis and Evans.)						
Evans, David, <i>et al.</i> (See Adams, Joseph, assignor.)						
Evans, Edward A., New York, N. Y. Sign.....	223,493	Jan. 13	355	94	17	75
Evans, George P., Fort Wayne, Ind. Overalls.....	236,012	Dec. 28	1187	323	18	1502
Evans, Ivor J. (See Kizer, James H., assignor.)						
Evans, James W., New York, N. Y. Hatchway-door mechanism.....	234,464	Nov. 16	795	213	18	1135
Evans, James W., New York, N. Y. Smoke-stack for locomotives.....	234,911	Nov. 30	1368	367	18	1242
Evans, Jonathan M. (See Evans, Austin C., J. M., and L. C.)						
Evans, Lemuel E., New York, N. Y. Wire bale-tie.....	229,392	June 29	1488	409	17	1481
Evans, Lorenzo D., New York, N. Y. Printer's type-case.....	229,687	July 6	201	56	18	38
Evans, Louis C. (See Evans, Austin C., J. M., and L. C.)						
Evans, Michael W., <i>et al.</i> (See Willmeth, Charles S., assignor.)						
Evans, Quimby N. (See Tudor and Evans.)						
Evans, William J., Philadelphia, Pa. Letter-box.....	227,509	May 11	485	139	17	1069
Evans, William H. (See Wunderlich, Gennaro, assignor.)						
Evarts, John A. (See Morgan and Evarts.)						
Evarts, John A., assignor to Bradley & Hubbard Manufacturing Company, West Meriden, Conn. Shade-holder.....	224,411	Feb. 10	506	145	17	306
Evarts, John A., assignor to Bradley & Hubbard Manufacturing Company, West Meriden, Conn. Extension lamp-fixture.....	230,258	July 20	890	253	18	161
Evans, Platt, Jr., Covington, Ky. Pendulum-scales.....	225,513	Mar. 16	636	186	17	586
Everding, John, assignor of one-half interest to A. S. Jenks, Philadelphia, Pa. Pipe-wrench.....	231,023	Aug. 10	499	141	18	334
Everding, John, assignor of one-half interest to A. S. Jenks, Philadelphia, Pa. Steam-generator.....	229,984	July 13	549	153	18	99
Everest, Hiram B., and C. E. Ross, executrix of A. P. Ross, deceased, assignors to Vacuum Oil Company, Rochester, N. Y. Transportation can and box for oil. (Reissue.)	9,017	Jan. 6	247	66	17	45
Everet, Charles G., Bellefontaine, Ohio. Corn-planter.....	229,985	July 13	551	153	18	99
Everhart, Edgar, Hoboken, N. J. Composition for insulating telegraph-wires, coating metals, covering roofs, and for other purposes.....	227,352	May 11	315	.....	17	1041
Everhart, James M. (See Lawler, James J., assignor.)						
Everitt, William L., New Haven, Conn. Car-coupling.....	232,953	Oct. 5	189	50	18	769
Everitt, John S., and C. H. Avery; said Everitt assignor to J. A. Miller, Oshkosh, and said Avery and Miller assignors of one-fourth their interest to J. G. Flanders and E. H. Bottom, Milwaukee, Wis. Head-block for saw-mills. (Reissue.)	9,217	May 25	1262	357	17	1214
Everitt, Percival, Great Ryburgh, assignor of one-half interest to F. Wheeler & Co., London, England. Screw-stock.....	227,508	May 11	485	139	17	1069
Everson, Gilbert F. (See Smith, Philester, assignor.)						
Ewart Manufacturing Company. (See Ewart, William D., assignor.) (Reissue.)						
Ewart Manufacturing Company. (See Simpson, John, assignor.)						
Ewart, William D., Chicago, Ill. Drive-chain.....	225,113	Mar. 2	156	44	17	483
Ewart, William D., Bello Plaine, Iowa, assignor to Ewart Manufacturing Company, Chicago, Ill. Drive-chain. (Reissue.)	9,256	June 15	1001	272	17	1397
Ewing, John H., and E. L. Bill, Wheeling, W. Va. Lantern.....	224,888	Feb. 24	1081	309 310 311	17	426
Ewing, Orville, Decatur, Ill. Device for catching and holding hogs.....	235,675	Dec. 21	758	215	18	1423
Excelsior Manufacturing Company. (See Nation, David N., assignor.)						
Excelsior Manufacturing Company. (See O'Keefe, John, assignor.)						
Eynon, James. (See Hughes and Eynon.)						
Eysenbach, Henry P., Delphos, Ohio. Advertising checker-board.....	228,330	June 1	198	55	17	1259
Eyster, George S., Halltown, W. Va. Machine for lining straw-board.....	226,733	Apr. 20	695	193	17	863
Eyster, George S., Halltown, W. Va. Machine for lining sheets of straw-board.....	231,024	Aug. 10	500	141	18	334
Ezard, Charles, Manchester, England. Molding-machine.....	226,655	Apr. 20	614	172	17	870
Faber, John E., Port Richmond, N. Y. Lead-pencil.....	229,988	July 13	555	154	18	100
Faber du Faur, Adolph, Newark, N. J., assignor to E. Cooper and A. S. Hewitt, New York, N. Y. Gas-producer.....	225,813	Mar. 23	995	285 286	17	656
Faber du Faur, Adolph, Newark, N. J. Process and apparatus for burning pulverized fuel.	228,334	June 1	202	56	17	1259
Fabric Fire Hose Company. (See Gillespie, James E., assignor.)						
Fagan, George R. (See Wright, William A., assignor.)						
Fagley, John. (See Kerstetter and Fagley.)						
Fahs, Joseph F., A. C. Belden, and F. W. Kremer, Akron, Ohio; said Belden and Kremer assignors of one-sixth interest to said Fahs. Oatmeal-machine.....	234,010	Nov. 2	233	62, 63	18	1024
Fahy, John. (See Murray, Charles A., assignor.)						
Fairbairn, William U., assignor to himself, W. H. Ingersoll, Hyde Park, and H. T. McClearn, Dedham, Mass. Governor for marine engines.....	228,252	June 1	109	32	17	1244
Fairbank, Roswell L., Deansville, N. Y. Reversible back for lounges.....	224,082	Feb. 3	131	37	17	225
Fairbanks & Co., E. & T. (See Fairbanks, Franklin, assignor.)						
Fairbanks, Crawford M., Central Falls, assignor to New American File Company, Pawtucket, R. I. Handle for files.....	225,004	Mar. 2	24	7	17	461
Fairbanks, Franklin, assignor to E. & T. Fairbanks & Co., St. Johnsbury, Vt. Platform-scales.....	227,969	May 25	1044	297	17	1179
Fairbanks, John A., Cambridgeport, Mass. Thill-coupling.....	229,310	June 29	1391	331	17	1468
Fairbanks, Reuben G., Fort Ann, and D. E. Breinig, Brooklyn, N. Y., assignors to Bridgeport Wood Finishing Company, Bridgeport, Conn. Pulverizing apparatus.....	227,970	May 25	1045	297 298	17	1179
Fairbanks, Thaddeus, St. Johnsbury, Vt. Radiator.....	231,413	Aug. 24	943	267	18	420
Fairbrother, Henry L. (See Drown, Otis E., assignor.)						
Fairchild, Frank L. (See Spindler and Fairchild.)						
Fairchild, Frank L., <i>et al.</i> (See Yoch, Benhard, assignor.) (Reissue.)						
Fairchild, Frank L., Mount Vernon, Ohio. Road-engine.....	225,695	Mar. 23	855	248 249	17	634
Fairchild, Frank L., Mount Vernon, Ohio. Traction-engine.....	230,762	Aug. 3	190	55	18	277
Fairchild, Frank L., Mount Vernon, Ohio. Traction-wheel.....	231,781	Aug. 31	1375	387 388	18	495
Fairchild, John P., and W. H. Miller, St. Louis, Mo. Sprinkling apparatus.....	230,863	Aug. 10	328	96	18	308
Fairchild, Lo Roy W., New York, N. Y. Combined whistle and compass.....	233,742	Oct. 26	1177	327	18	958
Fairfield, Hadley P. (See McKay and Fairfield.)						
Fairfield, Hadley P., West Mcdford, Mass. Machinery for assorting pieces of leather.....	224,005	Feb. 3	40	12	17	209

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Fairfield, Hadley P., West Medford, assignor to G. McKay, trustee, Cambridge, Mass. Machine for stretching and notching uppers.....	229,986	July 13	552	154	18	100
Fairfield, Hadley P., West Medford, assignor to G. McKay, trustee, Cambridge, Mass. Nailing-machine.....	230,624	Aug. 3	33	9	18	252
Fairfield, Hadley P., West Medford, assignor to G. McKay, Cambridge, Mass., and H. G. Thompson, Milford, Conn., trustees. Lasting-machine.....	234,912	Nov. 30	1368	368	18	1242
Fairlie, Robert F., London, England. Car-coupling. (Reissue).....	9,147	Apr. 13	508	143	17	842
Fake, Elmira, <i>et al.</i> (See Fake, Henry, assignor.)						
Fake, Georgiana, <i>et al.</i> (See Fake, Henry, assignor.)						
Fake, Henry, Chicago, Ill., assignor to himself, C. C. Chase, E., G., and W. S. Fake. Current and tide-water wheel.....	234,396	Nov. 16	713	192	18	1122
Fake, Warren S., <i>et al.</i> (See Fake, Henry, assignor.)						
Fales, Giles S., New Bedford, Mass. Tool-post for turning-lathes.....	224,006	Feb. 3	41	12	17	210
Fales, Jenks & Sons. (See Morse, Cyrus B., assignor.)						
Falize, Lucien J., Jr., Paris, France. Ornamentation of jewelry and other articles.....	223,803	Jan. 27	729	197	17	156
Fallows, Joseph, Southbridge, Mass. Safety lamp-bracket.....	230,625	Aug. 3	34	9	18	252
Fancher, James A., West Granby, Conn. Velocipede.....	227,746	May 18	769	217	17	1124
Fancher, Loren, Detroit, Mich. Device for forcibly opening doors.....	233,665	Oct. 26	1095	304	18	944
Fanning, David H., <i>et al.</i> (See Hill, Lucian, assignor.)						
Fanning, Gurdon S. and J. M., Auburn, N. Y. Cleansing beer-casks.....	231,219	Aug. 17	736		18	379
Fanning, James M. (See Fanning, Gurdon S. and J. M.)						
Fanning, Jessie L., <i>et al.</i> (See Fanning, John, assignor.)						
Fanning, John, assignor to F. L. Burchard, J. L. Fanning, and E. H. Purdy, Brooklyn, N. Y. Lemon-squeezer.....	226,166	Apr. 6	21	6	17	750
Fanning, John, assignor to F. L. Burchard, J. L. Fanning, and E. H. Purdy, Brooklyn, N. Y. Lemon-squeezer.....	233,339	Oct. 19	689	189	18	867
Farber, Mannasseh W., assignor to R. Farber, Mount Pleasant, Iowa. Scraper.....	232,396	Sept. 21	634	175	18	644
Farber, Rachel. (See Farber, Mannasseh W., assignor.)						
Farbwerke, vormals Meister, Lucius & Brüning. (See Baum, Heinrich, assignor.)						
Faris, James B., Glenfield, near Pittsburg, Pa. Grate.....	231,296	Aug. 17	816	{ 228 229 }	{ 18 18 }	{ 392 392 }
Farlee, George W., Boundbrook, N. J. Berth-protector for sleeping-cars.....	223,494	Jan. 13	355	95	17	75
Farley, Cyrus H., Portland, Me. Lamp-reflector.....	231,159	Aug. 17	654	185	18	367
Farley, Robert, Jr. (See Russell, William H., assignor.)						
Farling, Albert D., Grand Rapids, Mich. Millstone-dress.....	232,603	Sept. 28	878	243	18	692
Farmer, George P., <i>et al.</i> (See Smith, Albert M., assignor.)						
Farmer, Marcellus J., assignor of one-half interest to H. W. Holley, Lynchburg, Va. Machine for making plug-tobacco.....	229,813	July 13	362	101	18	70
Farmer, Samuel C., Jr., <i>et al.</i> (See Bartels, William H., assignor.)						
Farmer, William. (See Attrill and Farmer.)						
Farmers Friend Manufacturing Company. (See Kuhns, Daniel Y., assignor.)						
Farmers Friend Manufacturing Company. (See Runstetter, Andrew, assignor.)						
Farmers Friend Manufacturing Company. (See Runstetter, Michael, assignor.)						
Farmers Friend Manufacturing Company. (See Trantmann, Charles M., assignor.)						
Farmers Manufacturing Company. (See Trautmann, Charles M., assignor.)						
Farnam, Harriet A., assignor of one-half interest to H. C. Eller, St. Paul, Minn. Cooking and heating apparatus.....	231,025	Aug. 10	501	141	18	335
Farnan, Michael, <i>et al.</i> (See Franta, Joseph F., assignor.)						
Farnham, Frank G., assignor of one-half interest to L. J. Dorflinger, White Mills, Pa. Lamp.....	231,549	Aug. 24	1095	307	18	444
Farnham, Frank G., White Mills, Pa. Cartridge capping and uncapping implement.....	232,251	Sept. 14	451	{ 124 125 }	{ 18 18 }	{ 607 607 }
Farnham, Frank G., White Mills, Pa. Cartridge-loading implement.....	234,259	Nov. 9	529	146	18	1083
Farnham, Frank G., White Mills, assignor to himself and M. M. Treadwell, Hawley, Pa. Permutation-padlock.....	235,862	Dec. 28	1001	277	18	1472
Farnham, John N., Waltham, Mass. Steam-boiler.....	227,621	May 18	618	177	17	1102
Farnham, William E., Pittsfield, Mass. Skate.....	234,862	Nov. 30	1305	352	18	1232
Farnsworth, Andrew C., Chicago, Ill. Portable fare-collecting apparatus.....	224,770	Feb. 24	945	{ 269 270 }	{ 17 17 }	{ 405 405 }
Farnsworth, George, Chicago, Ill. Barrel-machine.....	224,587	Feb. 17	721	205	17	352
Farnsworth, Ira, Boston, Mass. Marine clock.....	234,863	Nov. 30	1306	352	18	1232
Farnsworth, William G. (See Bergan, John A., assignor.)						
Farnum, Edward P., Concord, N. H. Riveting-tool.....	229,638	July 6	202	56	18	38
Farnum, Edward P., Concord, N. H. Rivet.....	232,523	Sept. 14	453	125	18	607
Farnum, William C., assignor to L. Wilder, Hoosick Falls, N. Y. Lawn-mower.....	224,522	Feb. 17	639	184	17	339
Farnum, William C., assignor to L. Wilder, Hoosick Falls, N. Y. Pawl-and-ratchet device.....	224,524	Feb. 17	640	184	17	339
Parr, Hiram G., assignor to himself and H. C. Copeland, Brandon, Vt. Machine for forming flanges on counter-stiffeners for boots and shoes.....	230,259	July 20	891	253	18	161
Farradesche, Francois M. C., Paris, France. Umbrella and sun-shade.....	235,943	Dec. 28	1104	305	18	1488
Farrar, James B., Wilmington, N. C. Gatherer and ruffler for sewing-machines.....	235,220	Dec. 7	196	54	18	1313
Farrar, William B., Greensborough, N. C. Turbine water-wheel.....	224,161	Feb. 3	212	62	17	239
Farrel, John, <i>et al.</i> (See Eichbaum, Henry, assignor.)						
Farrell, James W., Philadelphia, Pa. Acidizing-machine for making sheet-metal cans.....	224,771	Feb. 24	946	270	17	405
Farrell, John T., Webster, Mass. Damper.....	223,222	Jan. 6	15	4	17	5
Farrell, Thomas J., Fort Howard, Wis. Locomotive-spring.....	233,666	Oct. 26	1096	304	18	944
Farrell, William E., Philadelphia, Pa. Manufacture of paper-pulp from wood, &c.....	223,670	Jan. 20	568		17	119
Farrell, William E., Philadelphia, Pa. Paper-pulping engine for the reduction of wood, straw, &c.....	225,922	Mar. 30	1124	321	17	692
Farrier, John M., assignor of one-half interest to M. Kasmirsky, Dayton, Ohio. Window-blind.....	225,117	Mar. 2	162	46	17	484
Farrin, John, <i>et al.</i> (See Armstrong, William, assignor.)						
Farrington, Thomas B., Chicago, Ill. Tap or nipple for water and gas mains.....	223,327	Jan. 6	144	36, 37	17	26
Farrington, Thomas B., Chicago, Ill. Under-garment.....	228,748	June 15	733	202	17	1359
Farthing, John. (See Rhind and Farthing.)						
Farum, Robert J., Oakland, Cal. Chair-brace.....	230,117	July 20	717	201	18	135
Farwell, Pulaski, Fredericksville, Ill. Car-coupling.....	226,293	Apr. 6	169	49	17	776
Farwell, Willard B., New York, N. Y., assignor to S. G. Clarke, Tenafly, N. J. Corn-husker.....	224,588	Feb. 17	721	205	17	352
Farwell, Willard B., New York, N. Y. Corn-husker.....	230,163	July 20	793	224	18	117
Farwell, Willard B., New York, N. Y., assignor to S. G. Clarke, Tenafly, N. J. Apparatus for hydraulic mining.....	231,221	Aug. 17	733	207	18	379
Farwell, Willard B., New York, N. Y., assignor to S. G. Clarke, Tenafly, N. J. Combined ore-flume and riffle-box.....	235,944	Dec. 23	1104	306	18	1488
Farwell, William. (See Dillon and Cleary, assignors.) (Reissue.)						
Fascher, Hermann, Chicago, Ill. Grain-distributing machine.....	228,048	May 25	1126	320	17	1191

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Fasig, John, West Salem, Ohio. Thill-coupling.....	224,667	Feb. 17	809	229	17	367
Fath, Leonard G., Hillsborough, Ill. Cultivator.....	234,973	Nov. 30	1445	388	18	1255
Faucher, George E., Grand Prairie, Tex. Cotton and corn planter.....	226,734	Apr. 20	697	194	17	884
Faught, Nelson, Hendricks County, Ind. Wagon-body.....	224,889	Feb. 24	1085	311	17	427
Faulkner, Alfred. (See Weber, Theodore A., assignor.)						
Faulkner, Alfred, <i>et al.</i> (See Weber, Theodore A., assignor.)						
Faulkner, James J., assignor of part interest to J. Latshaw and J. Aikin, Louisville, Ky. Grinding-mill.....	225,118	Mar. 2	163	46	17	484
Faure, Camille A., and G. Trench, Faversham, assignor to Cotton Powder Company, (limited,) Westminster, England. Signaling-cartridge.....	231,705	Aug. 31	1281	360	18	480
Faure, Camille A., and G. Trench, Faversham, assignors to Cotton Powder Company, (limited,) Westminster, England. Detonator.....	233,406	Oct. 19	772	.....	18	880
Faust, Henry H. (See Halbach, Herman F., assignor.)						
Favier, Paul A. A. M. A., Paris, France. Extracting the fibers from textile plants.....	226,506	Apr. 13	426	.....	17	829
Fawcett, Richard, Salem, Ohio. Bolt and rivet cutter.....	229,987	July 13	554	154	18	100
Fawcett, Samuel, Rochester, N. Y. Pipe-tongs.....	223,333	June 1	201	56	17	1259
Fay, Alonzo G., Jr., New York, N. Y. Lace-fastening for gloves, &c.....	231,483	Aug. 24	1019	286	18	433
Fay & Co., J. A. (See Doane and Bugbee, assignors.)						
Fay & Co., J. A. (See Doane, Passel, and Bugbee, assignors.)						
Fay & Co., J. A. (See Passell, George W., assignor.)						
Fay, Francis A., Brooklyn, assignor, by mesne assignments, to P. C. Tiemann, New York, N. Y. Boot and shoe stretcher.....	232,478	Sept. 21	734	204	18	660
Fay, George H., assignor to himself and J. K. Robertson, Morrison, Ill. Breech-loading fire-arm.....	226,505	Apr. 13	424	119	17	829
Fay, William, St. Louis, Mo. Extension-table.....	224,007	Feb. 3	41	12	17	210
Fay, William W., assignor to himself and C. O. Adams, Jefferson City, Mo. Rail-joint.....	223,899	Jan. 27	844	225	17	174
Fay, Winslow L. (See Squire, Wesley C., assignor.)						
Fayaux, Augustus L., Philadelphia, Pa. Drum.....	223,586	Jan. 13	462	125	17	93
Fea, John, Amsterdam, N. Y. Expression-indicator for reed-organs.....	235,420	Dec. 14	442	{ 125 126 }	18	1363
Fearn, William R., assignor to himself and W. C. Vincent, Savannah, Ga. Railway-switch.....	235,421	Dec. 14	445	126	18	1363
Febiger, John C., Jr., New Orleans, La. Packing for engines, &c.....	232,955	Oct. 5	191	.....	18	769
Fee, John S. (See Ashlock, Richard A. H., assignor.)						
Feelemyer, Griffith. (See Hill, Charles G., assignor.)						
Feit, Daniel. (See O'Harra and Feit.)						
Felbel, Jacob, New York, N. Y. Putting up cigars.....	226,392	Apr. 13	276	82	17	806
Felgar, David, Stuart, Iowa. Agricultural boiler.....	225,514	Mar. 23	996	286	17	657
Fell Dynamic Motor Company. (See Fell, Thomas M., assignor.)						
Fell, Thomas M., Brooklyn, N. Y., assignor to Fell Dynamic Motor Company, Jersey City, N. J. Production of motive power.....	224,669	Feb. 17	811	230	17	367
Fell, Thomas M., Brooklyn, N. Y., assignor to Fell Dynamic Motor Company, Jersey City, N. J. Obtaining motive power from air and gases.....	224,772	Feb. 24	947	270	17	405
Fell, Thomas M., Brooklyn, N. Y., assignor to Fell Dynamic Motor Company, Jersey City, N. J. Furnace.....	225,357	Mar. 9	449	131	17	544
Feldin, Abraham, Brooklyn, N. Y. Upright piano-forte.....	232,346	Sept. 21	572	{ 157 158 }	18	633
Fellheimer, August, assignor to S. Wormser & Co., New York, N. Y. Corset.....	235,221	Dec. 7	197	54	18	1313
Fellowes, Cornelius, <i>et al.</i> (See Vetter, Joseph C., assignor.)						
Fellows, Alfred, G. A. Isbell, and L. Godard, Maquoketa, Iowa; said Godard assignor to said Fellows and Isbell. Trace-supporter.....	223,328	Jan. 6	145	37	17	26
Fellows, Henry, Bloomington, Ind. Lock-strike.....	232,954	Oct. 5	190	51	18	769
Fellows, John T. (See Ford and Fellows.)						
Felps, George H., <i>et al.</i> (See Gray, Robert W., assignor.)						
Felt, Alvin B., Philadelphia, Pa. Piping attachment for sewing-machines.....	223,329	Jan. 6	146	37	17	26
Felt, George H., New York, N. Y. Pump.....	224,668	Feb. 17	809	229	17	367
Felthousen, Barrent W., Milwaukee, Wis. Steam-trap.....	226,228	Apr. 6	91	25	17	762
Felthousen, Edward G., Buffalo, N. Y. Gage-cock.....	224,330	Feb. 10	413	117	17	291
Felthousen, Edward G., Buffalo, N. Y. Valve-stem for cocks and valves.....	228,991	June 22	1038	282	17	1410
Felthousen, Edward G., Buffalo, N. Y. Flue-brush.....	232,118	Sept. 14	289	82	18	579
Felthousen, Edward G., Buffalo, N. Y. Lubricating-pump.....	234,864	Nov. 30	1307	352	18	1232
Felthousen, Jacob D., assignor of one-half interest to J. Wren, Chicago, Ill. Splice joint for railway-rails.....	230,626	Aug. 3	34	10	18	252
Felthousen, Jacob D., assignor of one-half interest to J. Wren, Chicago, Ill. Car-roof.....	231,220	Aug. 17	737	207	18	379
Felton, Benjamin W., Boston, Mass. Ventilator for chimney-caps, &c.....	226,507	Apr. 13	428	119	17	829
Felton, Benjamin W., Boston, Mass. Hot-air furnace.....	228,336	June 1	204	57	17	1260
Felton, William. (See Gregg, Shaw, and Felton.)						
Fenley, George M., Medora, Ind. Drift-wheel for piers.....	227,747	May 18	770	217	17	1124
Fenn, George N. (See Fris and Fenn.)						
Fenn, Joseph E., Elizabeth, N. J. Duplex telegraph.....	231,904	Sept. 7	31	7	18	529
Fenton, Horace, Wethersfield, Conn. Line-fastener.....	225,923	Mar. 30	1129	321	17	692
Fenton, John, Indianapolis, Ind. Shoe-brush.....	230,869	Aug. 10	329	96	18	308
Fenton, John H., Indianapolis, Ind. Toe-weight.....	226,295	Apr. 6	171	49	17	777
Fenton, William W. (See Buren and Fenton.)						
Ferguson, Charles W., Janesville, Wis. Lamp-chimney cleaner.....	230,260	July 20	892	253	18	161
Ferguson, George W., New York, N. Y. Extension-cornice.....	232,479	Sept. 21	735	204	18	660
Ferguson, Henry J., New York, N. Y. Gas-carbureter.....	226,820	Apr. 20	787	{ 219 220 }	17	899
Ferguson, Henry S., <i>et al.</i> (See Daniels, Theodore T., assignor.)						
Ferguson, James F., Burlington, Vt. Refrigerator.....	226,993	Apr. 27	1015	{ 281 282 }	17	946
Ferguson, James H., Leavenworth, Kans. Lamp.....	231,026	Aug. 10	502	141	18	335
Ferguson, Jirah L., New York, N. Y. Station-indicator.....	231,297	Aug. 17	818	229	18	393
Ferguson, William E., New York, N. Y. Device for preventing the shifting of grain-cargoes.....	225,581	Mar. 16	708	208	17	600
Ferguson, William R., assignor of one-half interest to J. Montgomery, Marseilles, Ill. Machine for forming harness-pads.....	227,748	May 18	771	217	17	1124
Fernandez & Calvo. (See Bejottes, Leon J., assignor.)						
Fernow, Louis A., Chicago, Ill. Machine for drying printed and varnished sheets.....	226,735	Apr. 20	698	194	17	884
Fernow, Louis A., Chicago, Ill. Music-recording attachment for keyed instruments.....	227,101	May 4	11	3, 4	17	980
Ferrall, Thomas R., Boston, assignor to H. Loud, Everett, Mass. Tackle or pulley-block.....	228,335	June 1	203	57	17	1260
Ferrall, Thomas R., Boston, Mass. Snatch-block.....	235,222	Dec. 7	198	54	18	1313
Ferren, Myron J., Stoncham, assignor to G. McKay, Cambridge, Mass. Instep-holder for shoes.....	233,844	Nov. 2	23	6	18	990
Ferris, Charles, <i>et al.</i> (See Piersons, Charles S., assignor.) (Reissue.)						
Ferris, Hiram R., Cleveland, Ohio. Lifting-jack.....	229,814	July 13	364	101	18	70

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Ferris, James M., <i>et al.</i> (See Day, Erastus, assignor.)						
Ferris, Laning L., New York, N. Y. Bill and letter file.....	226,294	Apr. 6	170	49	17	777
Ferris, Sherwood B., Brooklyn, N. Y. Corset.....	231,414	Aug. 24	944	267	18	421
Ferriss, James H., West Troy, N. Y. Automatic lamp-extinguisher.....	227,971	May 25	1046	298	17	1179
Ferry, Dexter M., <i>et al.</i> (See Fontaine, Eugene, assignor.)						
Ferry, Edwin A. (See Sanborn and Ferry.)						
Ferry, Thomas, Wilmington, Del. Carpet-cleaner.....	231,550	Aug. 24	1096	{ 307 308 }	18	444
Fessenden, Albert H., Porter, Wis., assignor, by mesne assignments, to G. W. Brown, Galesburg, Ill. Corn-planter. (Reissue).....	9,044	Jan. 13	517	139	17	102
Fest, Charles, New York, N. Y. Mounting mother-of-pearl and similar substances on metal.....	223,441	Jan. 13	289	77	17	65
Fetter, William J., St. Louis, Mo. Belt-pulley.....	232,635	Sept. 28	915	251	18	698
Fetterly, Zenas, and O. Dutton, Yolo, Cal. Barrel-tap.....	234,377	Nov. 9	665	181	18	1106
Feurth, Charles. (See Burdge, Henry R., assignor.)						
Fichtenberg, Werner N., assignor to W. C. Peet & Co., New York, N. Y. Scarf.....	225,815	Mar. 23	997	286	17	657
Fickett, Albert, assignor of one-third interest to A. M. Hastings, Rochester, N. Y. Wood-pulp machine.....	232,480	Sept. 21	736	205	18	660
Fickett, William S., assignor to W. W. Sherar, Rochester, N. Y. Machine for making food from hulled corn.....	233,085	Oct. 12	355	97	18	803
Field, Albert D. (See Gray, Henry F., assignor.)						
Field, Charles C., Crete, Neb. Combined clothes-rack and mantel.....	227,749	May 18	772	217	17	1124
Field, Charles H., Brooklyn, N. Y. Manufacture of watch-cases.....	227,231	May 4	172	50	17	1005
Field, Edwin S., Springfield, Mass. Ice-cutting machine.....	234,397	Nov. 16	714	193	18	1122
Field, Francis F., Stapleton, N. Y. Helical-wire brush.....	232,636	Sept. 28	915	252	18	698
Field, George B., New York, N. Y. Furnace.....	227,888	May 25	945	270	17	1164
Field, George F. (See Gue and Field.)						
Field, Stephen D., San Francisco, Cal. Dynamo-electric machine.....	223,845	Jan. 27	780	208	17	164
Field, Stephen D., New York, N. Y. Telegraph relay and sounder.....	227,750	May 18	772	218	17	1124
Field, Stephen D., New York, N. Y. Propelling cars by electricity.....	229,991	July 13	559	{ 155 156 }	18	101
Field, Stephen D., New York, N. Y. Electro-magnetic locomotive.....	232,253	Sept. 14	454	125	18	607
Field, Stephen D., New York, N. Y. Underground telegraph.....	233,492	Oct. 19	870	240	18	896
Field, Stephen D., New York, N. Y. Telephonic receiving-instrument.....	233,493	Oct. 19	870	241	18	896
Field, Stephen D., New York, N. Y. Dynamo-electric machine. (Reissue).....	9,458	Nov. 9	685	185	18	1109
Field, Stephen D., New York, N. Y. Speaking-telephone.....	234,554	Nov. 16	902	242	18	1153
Field, William D., assignor of one-half interest to F. W. Carpenter, Providence, R. I. Cotton-bale tie.....	223,723	Jan. 20	623	167	17	128
Field, William H. (See Galloway and Larsen, assignors.)						
Field, William H., <i>et al.</i> (See Richardson, George M. and C. C., assignors.) (Reissue.)						
Fidler, Alfred W., and E. Kelly, Dansville, N. Y. Vehicle-spring.....	232,019	Sept. 7	173	46	18	552
Fields, William, Wilmington, Del. Smelting-furnace.....	227,510	May 11	486	140	17	1069
Fife, James T., Corning, Iowa. Bee-hive.....	224,589	Feb. 17	722	{ 205 206 }	17	352
Fifield, John W. D. (See Stoddard and Fifield.)						
Fifield, John W. D., North Brookfield, Mass. Crimping-machine.....	229,989	July 13	556	155	18	100
Fild, Peter, assignor to himself and F. A. Ludwig, Boston, Mass. Lemon-squeezer.....	230,870	Aug. 10	330	96	18	309
File, George D., West Pittston, Pa., assignor to himself and A. Y. Smith. Ironing-board.....	231,298	Aug. 17	819	229	18	393
Filley, Giles F. (See Nation, David H., assignor.)						
Filley, Giles F., and E. Boileau, St. Louis, Mo. Pan-rest for ovens.....	232,620	June 8	556	147	17	1322
Filley, Giles F., St. Louis, Mo. Cooking-stove.....	235,346	Dec. 14	358	98	18	1348
Filley, Giles F., St. Louis, Mo. Cooking-stove.....	235,347	Dec. 14	359	99	18	1349
Filley, Giles F., St. Louis, Mo. Cooking-stove.....	235,348	Dec. 14	359	99	18	1349
Filley, Giles F., St. Louis, Mo. Range.....	235,349	Dec. 14	360	99	18	1349
Filley, Giles F., St. Louis, Mo. Range.....	235,350	Dec. 14	361	99	18	1349
Finch, William R., Eureka, Cal. Breech-loading fire-arm.....	229,035	June 22	1078	{ 294 295 }	17	1416
Finck, Henry, San Francisco, Cal. Fire-kindler.....	229,596	July 6	104	28	18	24
Findlay, John, Montreal, Quebec, Canada. Car-wheel.....	233,222	Oct. 12	523	145	18	831
Fine, E. M. (See Fine, Isaac, assignor.) (Reissue.)						
Fine, Isaac, assignor to E. M. Fine, Philadelphia, Pa. Suspension ring and hook. (Reissue.)	9,494	Dec. 7	328	90	18	1337
Fine, Stewart, and M. F. Locke, St. Louis, Mo. Vegetable-grater.....	231,416	Aug. 24	949	267	18	421
Finger, Louis, Boston, Mass. Book-binding.....	233,607	Oct. 26	1025	285	18	932
Finigan, Thomas, Paterson, N. J. Thread-cleaner.....	225,217	Mar. 9	277	79	17	517
Fink, Carl, Berlin, Germany, assignor to R. Kuehnert, Cincinnati, Ohio. Vertical-disk mill.....	233,495	Oct. 19	872	241	18	897
Fink, George W., Pleasant Plains, Ill. Check-row seed-planter.....	234,555	Nov. 16	903	243	18	1154
Fink, Simon, Milwaukee, Wis. Combined ash pan and sifter.....	228,749	June 15	733	202	17	1359
Finkbeiner, John F., Clearfield, Pa. Tool for lumbermen.....	235,076	Dec. 7	18	5	18	1284
Finley, Gideon C. and S. E., Petersburg, Tenn. Bee-bucket.....	223,330	Jan. 6	147	37	17	26
Finley, John E., Memphis, Tenn. Bottom for tin and other metal ware.....	223,641	Jan. 20	536	144	17	114
Finley, John E., Memphis, Tenn. Churn-dasher.....	223,642	Jan. 20	536	144	17	114
Finley, John E., Memphis, Tenn. Churn-dasher.....	223,643	Jan. 20	537	145	17	115
Finley, John E., Memphis, Tenn. Coffee-pot.....	224,822	Feb. 24	1008	285	17	414
Finley, Sarah E. (See Finley, Gideon C. and S. E.)						
Finley, Stephen L., Brooklyn, N. Y. Bell-cord guide for railway-cars.....	228,253	June 1	112	33	17	1244
Finn, Archibald T., New York, and W. S. Archer, Yonkers, assignors to Duplex Fiber Company, New York, N. Y. Animal fibers, &c.....	235,519	Dec. 14	570	162	18	1385
Finn, John L., Elyria, Ohio, assignor, by mesne assignment, to Chinneck Electric Company, New York, N. Y. Telegraph-insulator. (Reissue.)	9,484	Nov. 30	1551	417	18	1273
Finnegan, John, assignor to W. C. Dickey, Philadelphia, Pa. Jump-seat for carriages.....	226,053	Mar. 30	1290	364	17	717
Finnell, Timothy H., Syracuse, N. Y. Railway-switch.....	223,587	Jan. 13	462	125	17	93
Finney, Joseph R., Pittsburg, Pa. Shade and curtain roller.....	227,889	May 25	946	271	17	1164
Finney, Joseph R., Pittsburg, Pa. Apparatus for measuring the electric current.....	231,415	Aug. 24	946	267	18	421
Finney, Joseph R., Pittsburg, Pa. Railway-car telegraph.....	231,552	Aug. 24	1098	308	18	444
Finney, Joseph R., Pittsburg, Pa. Telegraph.....	234,260	Nov. 9	531	146	18	1083
Finney, Joseph R., Pittsburg, Pa. Electric lighting apparatus.....	234,261	Nov. 9	534	146	18	1084
Finsterer, John, Philadelphia, Pa. Commode.....	226,296	Apr. 6	172	49	17	777
Finzer, Rudolph, Louisville, Ky. Tobacco-caddy.....	228,182	June 1	23	7	17	1231
Fire Extinguisher Manufacturing Company. (See Granger, Almon M., assignor.)						
Fire Extinguisher Manufacturing Company. (See Stanton, John W., assignor.)						
Firebaugh, William R., Danville, Ill. Car-coupling.....	231,782	Aug. 31	1376	398	18	405
Firm, Joseph L., New York, N. Y. Set-off for printing-machines.....	227,157	May 4	84	23	17	991
Firmbach, John, assignor of one-half interest to J. S. Gardner, Brooklyn, N. Y. Glue cement.....	225,119	Mar. 2	164		17	484



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Fischbeck, Detmar, Milwaukee, Wis. Fly-net.....	227,353	May 11	316	91	17	1041
Fischbeck, Frederick. (See Lotz, William H., assignor.) (Reissue.)						
Fischer, Charles S., New York, N. Y. Upright-piano-forte action-frame.....	224,008	Feb. 3	42	13	17	210
Fischer, Ferdinand O., Aptos, Cal. Whiffletree.....	230,764	Aug. 3	192	56	18	278
Fischer, Francis J., Hamilton, Ohio. Hoe.....	232,700	Sept. 28	989	272	18	710
Fischer, George, <i>et al.</i> (See Miesch, John, assignor.)						
Fischer, George, Hainfeld, Austria. Crucible-furnace.....	228,049	May 25	1127	321	17	1192
Fischer, Johann, Tannwald, Bohemia, Austria, assignor to J. Thompson, New York, N. Y. Seenring molded glass stones to metallic frames.....	225,816	Mar. 23	997	286	17	657
Fischer, Peter, Crawfordsville, Ind. Railway-bridge.....	230,410	July 27	1096	309	18	201
Fischer, Philipp, assignor to C. Loucks, New York, N. Y. Button-shoe.....	233,496	Oct. 19	873	241 242	18	897
Fischer, Valentine, New York, N. Y. Valley and ridge sheets for roofs.....	235,351	Dec. 14	361	100	18	1349
Fischer, William. (See Ullman, Morris, assignor.)						
Fischer, William E., Boston, Mass. Machine for turning channel-flaps for boots and shoes. (Reissue).....	9,372	Sept. 7	270	74	18	569
Fiset, Michel, Albany, N. Y. Furniture-caster.....	223,846	Jan. 27	731	208	17	164
Fiset, Michel, Albany, N. Y. Shutter-fastener.....	235,676	Dec. 21	759	216	18	1423
Fish, Abner C. (See Jensen, Jens, assignor.)						
Fish, Abner C., Racine, Wis. Brake-lever.....	225,358	Mar. 9	451	131	17	545
Fish, Abner C., Racine, Wis. Brake-lever.....	226,508	Apr. 13	429	120	17	829
Fish, Abner C., Racine, Wis. Wagon-brake lever.....	229,689	July 6	203	56	18	38
Fish Brothers. (See Vanorman, Oliver, assignor.)						
Fish, Calvert A., New York, N. Y. Hand-loom.....	234,761	Nov. 23	1170	315	18	1203
Fish, John, Summit, N. J. Balanced slide-valve.....	224,525	Feb. 17	641	184	17	339
Fish, Lewis A., Faribault, Minn. Bag-tie.....	234,011	Nov. 2	235	64	18	1024
Fish, Lewis A., Faribault, Minn. Bag-holder.....	234,012	Nov. 2	236	64	18	1024
Fishborn, Reuben W., <i>et al.</i> (See Quick, William B., assignor.)						
Fisher, Abram, Perrysburg, Ind. Bolt-cutter.....	231,299	Aug. 17	819	229	18	393
Fisher, Alvan B., West Rutland, Mass. Machine for shaving basket-splints.....	234,398	Nov. 16	715	193	18	1122
Fisher, Charles B. (See Fisher, George W., assignor.)						
Fisher, Charles N., Willis, Tex., and C. L. Downes, Jersey City, N. J. Stylographic fountain-pen.....	224,162	Feb. 3	213	62	17	239
Fisher, Clark, Trenton, N. J. Vise.....	226,841	Apr. 27	828	231	17	916
Fisher, Ebenezer, and J. Watson, Kincardine, Ontario, Canada. Horse-collar.....	224,671	Feb. 17	814	230	17	368
Fisher, Ebenezer, and J. Watson, Kincardine, Ontario, Canada. Die for forging metallic horse-collar frames.....	226,737	Apr. 20	700	195	17	884
Fisher, Ebenezer, and J. Watson, Kincardine, Ontario, Canada. Horse-collar fastening.....	230,261	July 20	893	253	18	161
Fisher, Elias R. (See Meeker and Fisher.)						
Fisher, George W., assignor to C. B. Fisher, St. Louis, Mo. Shafting-hanger.....	224,821	Feb. 24	1007	235	17	414
Fisher, Hart A., Toledo, Ohio. Cuff-button.....	226,736	Apr. 20	699	194	17	884
Fisher, Harvey L., Toledo, Iowa. Sickle-holder.....	230,118	July 20	717	201	18	135
Fisher, Israel. (See Gasset and Fisher.)						
Fisher, Israel, Boston, Mass., assignor to Union Electric Signal Company. Electrical railway-signal.....	235,145	Dec. 7	100	30	18	1298
Fisher, James S., assignor of one-half interest to B. B. Browne and G. F. Adams, Baltimore, Md. Car-coupling.....	225,583	Mar. 16	710	209	17	600
Fisher, John, New York, N. Y. Hoisting and loading apparatus.....	229,528	July 6	24	6, 7	18	12
Fisher, John, London, England. Shaft of screw-propellers.....	231,553	Aug. 24	1101	308	18	445
Fisher, John, Brooklyn, N. Y. Plank for conveying packages.....	232,120	Sept. 14	292	82	18	580
Fisher, John W. S. (See Emerson, Lowe, assignor.)						
Fisher, Joseph, and J. Gamble, Harrison, N. J. Curtain-roller.....	225,582	Mar. 16	709	209	17	600
Fisher, Laban. (See Clawson, Milton J., assignor.)						
Fisher, Louis M. (See Maisel and Fisher.)						
Fisher, Robert A., assignor to Harrison Brothers & Co., Philadelphia, Pa. Preparing a sizing material used by paper-makers.....	223,442	Jan. 13	290	.....	17	65
Fisher, Robert A., assignor to Harrison Brothers & Co., Philadelphia, Pa. Manufacture of a white compound for paper-makers' use.....	223,443	Jan. 13	291	.....	17	65
Fisher, William L., South Saginaw, Mich. Car-coupling.....	230,763	Aug. 3	191	55	18	277
Fisher, William M., Cincinnati, Ohio, assignor of four-fifths interest to C. and A. Lawrence, J. A. Gano, and T. T. Heath. Boiler-furnace.....	225,051	Mar. 2	92	25	17	472
Fisher, William M., assignor to American Boiler and Furnace Company, Cincinnati, Ohio. Steam-boiler.....	228,521	June 8	432	118	17	1304
Fisher, William M., assignor, by mesne assignments, to American Boiler and Furnace Company, Cincinnati, Ohio. Boiler-furnace. (Reissue).....	232,481	Sept. 21	738	205	18	661
Fishero, John, Alamo, Ind. Flour and meal chest.....	9,492	Dec. 7	324	90	18	1336
Fishkill Landing Machine Company. (See Mills, Emory W., assignor.)	234,013	Nov. 2	237	64	18	1024
Fisk, Clark & Flagg. (See Flagg, Thomas J., assignor.)						
Fisk, James, Brattleborough, Vt. Horse-detacher.....	234,664	Nov. 23	1062	286	18	1186
Fisk, Wilbur L. (See Culhertson, William, assignor.)						
Fiske, Bradley A., Naperville, Ill. Pencil and crayon holder.....	226,607	Apr. 20	556	155	17	861
Fiske, Henry G., Springfield, Mass. Telephone signaling apparatus.....	226,229	Apr. 6	92	25	17	762
Fiske, Henry G., Springfield, Mass. Dental attachment for telephones.....	228,254	June 1	113	33	17	1244
Fiske, Henry G., Springfield, Mass. Electric signal apparatus.....	229,529	July 6	26	7	18	12
Fiske, Henry G., Springfield, Mass. Electric signal apparatus.....	229,990	July 13	557	155	18	101
Fiske, Henry G., Springfield, Mass. Lawn-mower.....	233,494	Oct. 19	871	241	18	897
Fiske, Henry G., Springfield, Mass. Lawn-mower.....	234,553	Nov. 16	900	242	18	1153
Fiske, William S., Stamford, Conn. Steam-boiler.....	224,890	Feb. 24	1086	311	17	427
Fiske, William S., Stamford, Conn. Steam-engine.....	231,551	Aug. 24	1097	303	18	444
Fitch, Eugene L., Breda, Iowa. Thread-case.....	231,027	Aug. 10	503	142	18	335
Fitch, Ezra C., New York, N. Y. Watch-case.....	224,670	Feb. 17	813	230	17	367
Fitch, Frederick K. (See Stearns, J. Milton, Jr., assignor.)						
Fitch, Henry, Lawrenceburg, Ind. Calculator.....	232,482	Sept. 21	739	205	18	661
Fitch, Lauren M., assignor of one-half to L. Roth, Rome, N. Y. Platform-spring.....	234,974	Nov. 30	1446	329	18	1255
Fitch, William C., Sacramento, Cal. Newspaper-file.....	229,036	June 22	1080	295	17	1416
Fithian, Joanna, Knightstown, Ind. Dish-drainer.....	233,340	Oct. 19	690	159	18	867
Fithian, Lemuel S., Brooklyn, N. Y. Blower or exhaust.....	234,014	Nov. 2	237	65	18	1025
Fitt, Frederick, assignor of part interest to J. R. Armstrong and H. J. Gibbs, Ottawa, Ontario, Canada. Removable escapement for watches.....	230,262	July 20	894	254	18	161
Fitts, George W., South Hampton, N. H., and L. F. Griffin, Lake Forest, Ill. School-desk.....	226,842	Apr. 27	830	231	17	917
Fitts, George W., South Hampton, N. H., and L. F. Griffin, Lake Forest, Ill. Elevator.....	232,637	Sept. 28	916	252	18	698
Fitz, John, <i>et al.</i> (See Armstrong, William, assignor.)						
Fitzgerald, Daniel H. (See Broughton, John, assignor.)						



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Fitzgerald, John, Brooklyn, N. Y. Grinding-mill.....	235,422	Dec. 14	446	{ 126 127 }	18	1364
Fitzgerald, Thomas, Jr., Boston, Mass. Coffee and tea filter.....	234,556	Nov. 16	904	243	18	1154
Fitzgerald, Thomas, Jr., Boston, Mass. Lamp-burner.....	234,762	Nov. 23	1171	316	18	1204
Fitzgerald, Walter S., Boston, Mass. Skiing-machine.....	228,183	June 1	24	7, 8	17	1231
Fitzhugh, Benjamin G., assignor of one-half to P. Christ, Baltimore Md. Car-starter.....	234,121	Nov. 9	367	101	18	1054
Fitzhugh, Henry M., Bay City, Mich., assignor of one-half interest to S. E. Babcock, T. E. Haslehurst, and J. B. Anthony, Troy, N. Y. Covering for steam and hot-air pipes.....	231,300	Aug. 17	820	230	18	393
Fitzhugh, Henry M., Bay City, Mich. Manufacture of barrels.....	232,254	Sept. 14	457	126	18	608
Fitzmyer, George F., (See Hennessy, James J., assignor.)						
Flad, Henry, St. Louis, Mo. Seasoning wood.....	231,783	Aug. 31	1377	388	18	495
Flad, Henry, St. Louis, Mo. Preserving timber.....	231,784	Aug. 31	1378	389	18	496
Flagg, George H. P., (See Helms, Charles H., assignor.)						
Flagg, George H. P., (See Tayman and Bennor, assignors.)						
Flagg, George H. P., (See Tayman, Benjamin J., assignor.) (Reissue.)						
Flagg, J. Melledge, Providence, R. I. Loom.....	228,050	May 25	1129	321	17	1192
Flagg, Lysander, (See Buck, George H., assignor.)						
Flagg, Stanley G., et al., (See Mellinger, Christian K., assignor.) (Reissue.)						
Flagg, Thomas J., assignor to Fisk, Clark & Flagg, New York, N. Y. Neckscarf.....	227,158	May 4	85	23	17	991
Flagler, Harvey K., (See Mandel, Philip H., assignor.)						
Flanagan, John, Newburg, N. Y. Hydrant.....	230,765	Aug. 3	193	56	18	278
Flanders, Frederick, (See Jackman and Flanders.)						
Flanders, James G., et al., (See Everitt and Avery, assignors.) (Reissue.)						
Flanders, William G., Lansingburg, N. Y. Steam-cooker.....	225,584	Mar. 16	711	209	17	600
Flanders, William G., Lansingburg, N. Y. Steam-cooker.....	234,865	Nov. 30	1308	353	18	1233
Flanery, David, Jackson, Miss. Electric lighting.....	223,495	Jan. 13	356	95	17	76
Flather, Edward, Bridgeport, Conn. Balance-wheel pulley for sewing-machines.....	228,184	June 1	25	8	17	1231
Flather, Edward, Bridgeport, Conn. Balance-wheel pulley for sewing-machines.....	235,146	Dec. 7	103	30	18	1298
Flato, Fridrich, Flatonia, Tex. Bird-cage.....	224,163	Feb. 3	214	62	17	239
Fleck, John B., Ithaca, N. Y. Mold for beefsteak-masticators.....	231,028	Aug. 10	504	142	18	335
Fleck, John B., Ithaca, N. Y. Meat-tenderer.....	231,301	Aug. 17	821	230	18	393
Fleck, Nicholas, Goldfield, and O. R. Williams, Fort Dodge, Iowa. Hay-loader.....	232,397	Sept. 21	635	175	18	644
Fleisch, Jacob H., New York, N. Y. Neckscarf.....	231,029	Aug. 10	505	142	18	335
Fleischmann, Charles L., Washington, D. C. Device for overcoming the dead-points of cranks.....	228,185	June 1	26	8, 9	17	1231
Fleischmann, Charles L., Washington, D. C. Duplex pedal motor.....	230,411	July 27	1098	309	18	201
Fleischmann, Gustav, (See Kalthoff, Casper, assignor.)						
Fleisher, Simon B., Philadelphia, Pa. Device for holding coils of braid and similar articles. (Reissue.)	9,018	Jan. 6	248	66	17	45
Fleisher, Simon B., Philadelphia, Pa. Device for holding coils of braid and similar articles. (Reissue.)	9,019	Jan. 6	249	66	17	45
Fleitmann, Theodor, Iserlohn, Prussia, Germany. Manufacture of nickel-zinc alloy.....	225,977	Mar. 30	1202	-----	17	703
Fleming, Eli, (See Lettenmyer, George, assignor.)						
Fleming, Henry W., assignor of one-half interest to W. C. Williams and C. W. Higgins, Denver, Colo. Rock-drill.....	231,785	Aug. 31	1380	389	18	496
Fleming, James M., Idaville, Tenn. Fence-brace.....	229,311	June 29	1392	381	17	1469
Fleming, James P., et al., (See Williams, John D., assignor.)						
Fleming, James W., assignor of one-half interest to F. H. Stumpf, St. Joseph, Mo. Combined cultivator and harrow.....	226,656	Apr. 20	615	172	17	870
Fleming, John, assignor to himself, O. B. Keeley, Spring City, and E. S. Shantz, Philadelphia, Pa. Rock-drill bit.....	224,412	Feb. 10	506	145	17	306
Fleming, John, Toronto, Ontario, Canada. Machine for casting printers' leads.....	233,608	Oct. 26	1026	285	18	933
Fleming, Jonathan, Fort Wayne, Ind. Road-leveler.....	227,232	May 4	174	50	17	1006
Fleming, Samuel W., assignor of one-half interest to J. Rash, Dunkirk, Ohio. Plow-truck.....	231,302	Aug. 17	821	230	18	393
Fleming, Timothy A., Hoosick Falls, N. Y. Screw-tap.....	228,862	June 15	897	245	17	1382
Flemliken, Theodore M., assignor to H. M. Gorham, executrix, and N. C. Thompson, Rockford, Ill. Harvester-gearing.....	229,993	July 13	565	{ 156 157 }	18	101
Fletcher, Addison C., New York, N. Y. Envelope letter-sheet.....	228,522	June 8	434	118	17	1304
Fletcher, Jacob G., Washington, D. C. Artist's canvas-stretcher.....	226,509	Apr. 13	430	120	17	829
Fletcher, Thomas, Warrington, England. Composition for filling teeth.....	225,817	Mar. 23	998	-----	17	657
Fletcher, Thomas, Warrington, England. Composition for filling teeth.....	226,738	Apr. 20	702	-----	17	884
Fletcher, Tristram H., et al., (See Hutchins, George W., assignor.)						
Flexible Shoe Fastening Machine Company, (See Chaplin, Orril R., assignor.)						
Flick, Julius A., (See Kilroy and Flick.)						
Flindt, Henry, Albany, Oreg. Heel, shank, and counter supporter.....	231,554	Aug. 24	1102	309	18	445
Flinn, John R., (See Bott, Joseph E., assignor.)						
Flinn, R. Y., (See Miller, George A., assignor.)						
Flinner, John, (See Hollinger and Flinner.)						
Flint, Benjamin F., assignor to J. L. Hall, Cincinnati, Ohio. Time-lock.....	232,604	Sept. 28	879	243	18	692
Flint, Edwin H., Cincinnati, Ohio. Time-lock.....	229,992	July 13	562	156	18	101
Flint, Rockwell J., et al., (See Burton, George F., assignor.)						
Flint, William W., assignor to Chicago Stamping Company, Chicago, Ill. Sheet-metal can.....	236,013	Dec. 28	1187	328	18	1502
Flora, Orlando V., Madison, Ind., assignor of one-half interest to F. M. C. Kendall. Stirrup. (Reissue.)	9,244	June 8	691	189	17	1344
Florence Machine Company, (See Goodell, Dexter W., assignor.)						
Florence Manufacturing Company, (See Estabrook, Alanson C., assignor.)						
Florsheim, Simon, (See Schilling and Florsheim.)						
Flott, George W., et al., (See Brickett, John, assignor.)						
Flournoy, Parke P., Bethesda, Md. Pruning implement.....	230,539	July 27	1246	351	18	226
Flower, George H., Chicago, Ill. Lubricator for steam machinery.....	229,242	June 29	1300	359	17	1457
Flowers, Francis J., New York, N. Y. Vehicle-spring.....	227,233	May 4	175	51	17	1006
Floyd, George R., Cincinnati, assignor of two-thirds interest to G. L. Phillips, Dayton, Ohio. Fire-alarm telegraph.....	233,223	Oct. 12	524	146	18	832
Floyd, Stephen, (See Browning, William E., assignor.)						
Flynn, William V., assignor of one-half interest to O. C. King, Morristown, Tenn. Car-replacer.....	227,422	May 11	387	114	17	1052
Flynt, Chester D., Brooklyn, N. Y. Car-axle lubricator.....	228,337	June 1	205	57	17	1260
Flynt, James B., and A. Young, Brooklyn, N. Y. Skipping-rope.....	232,224	Oct. 12	526	146	18	832
Foard, Jeremiah W., San Francisco, Cal., assignor, by mesne assignments, to W. W. Wilson, Boston, Mass. Shoe-maker's float. (Reissue.)	9,396	Oct. 5	319	88	18	791
Fockler, Charles, Dubuque, Iowa. Brace for carriage-tops.....	223,900	Jan. 27	845	226	17	174
Fockler, Charles, Dubuque, Iowa. Carriage-top.....	227,751	May 18	773	218	17	1124
Fockler, Charles, Dubuque, Iowa. Curtain-fastening for carriages.....	227,752	May 18	774	219	17	1124

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Foerste, Albert, Berlin, Prussia, Germany. Leaf-support for albums.....	231,661	Aug. 31	1233	347	18	473
Fogelberg, Carl, and G. W. Graves, assignors to G. Woods & Co., Cambridgeport, Mass. } Apparatus for marking note-cylinders for musical instruments.....	230,540	July 27	1247	{ 351 352 }	{ 18	226
Fogg, Jason T., Garland, Mo. Egg-carrier.....	223,331	Jan. 6	148	38	17	27
Fogleman, L. V. (See Kennedy, James T., assignor.)						
Fogt, John B., Anna, Ohio. Horse hay-rake.....	224,893	Feb. 24	1088	312	17	428
Fois, Leonard V. G., Amiens, France. Machine for grinding mower and reaper knives.....	230,119	July 20	719	201	18	135
Foley, James, Montreal, Quebec, Canada. Softening, plumping, and depilating hides and skins.....	226,447	Apr. 13	349	.....	17	817
Foley, James S., and G. W. Comee, Waseca, Minn. Folding attachment for sewing-machines.....	228,622	June 8	558	148	17	1323
Folger, Addison L., Sumner, Ind., and A. S. Folger, Washington, Iowa. Evaporator.....	226,395	Apr. 13	280	83	17	807
Folger, A. Smith. (See Folger, Addison L. and A. S.)						
Follett, Edward P., assignor of two-thirds interest to Van Zandt & Bixby, Rochester, N. Y. Ash-sifter.....	231,030	Aug. 10	505	142	18	335
Follett, Edward P., Rochester, N. Y. Lantern.....	232,810	Oct. 5	16	5	18	741
Folsom, Estes A., New Haven, Conn. Cartridge implement.....	227,236	May 4	177	52	17	1006
Folsom, Hannibal, Stoughton, Mass. Machine for sewing shoes.....	227,160	May 4	87	23	17	992
Folsom, Lewis A., Dalton, Ga. Automatic fire-extinguisher.....	228,621	June 8	557	148	17	1322
Folsom, William D. (See Shipherd, William C., assignor.)						
Foltz, George H., Hartford, Conn. Scarfring.....	231,418	Aug. 24	951	268	18	421
Folz, David. (See Ligowsky and Woerber, assignors.)						
Fones, Civilion. (See Merritt, James D., assignor.)						
Fontaine, Eugene, assignor of one-half interest to D. M. Ferry, J. McMillan, and T. S. Christie, Detroit, Mich. Locomotive.....	230,472	July 27	1176	331	18	214
Fontaine, Henry S., assignor of one-half interest to J. B. Fontaine, Philadelphia, Pa. Shaft-coupling.....	233,225	Oct. 12	527	146	18	832
Fontaine, John B. (See Fontaine, Henry S., assignor.)						
Foot, James H. (See Anderson, Allen L., assignor.)						
Foot, Mark S., Burlington, Iowa. Steam and heat conducting pipe.....	234,015	Nov. 2	238	65	18	1035
Foot, Mary T., Boston, Mass. Game apparatus.....	227,159	May 4	86	23	17	991
Foot, Theodore M. (See Anderson and Foot.)						
Foot, Theodore M., New York, and F. Anderson, Peekskill, assignors to American Rapid Telegraph Company, New York, N. Y. Mechanism for perforating paper for telegraphic purposes.....	228,623	June 8	558	148	17	1323
Foot, Theodore M., assignor to G. H. G. Whitney, Brooklyn, N. Y. Printing-telegraph } apparatus.....	233,407	Oct. 19	773	{ 213 214 }	{ 18	880
Foot, Thomas M., New York, N. Y. Sinkers and weight for fishing-lines.....	231,417	Aug. 24	950	268	18	421
Forbes, Daniel, West Meriden, Conn. Brush-wheel for polishing glass.....	226,054	Mar. 30	1291	364	17	717
Forbes, Francis. (See Wilson, James G., assignor.)						
Forbes, James, Mooers, N. Y. Cultivator.....	224,773	Feb. 24	950	270	17	405
Forbes, John, assignor to himself and W. T. Hildrup, Harrisburg, Pa. Core-box.....	234,263	Nov. 9	538	147	18	1084
Forbes, John A., Dover, Del. Spring-motor.....	229,113	June 22	1164	319	17	1429
Forbes, John A., assignor of one-half interest to F. A. Williams, Dover, Del. Soldering-machine.....	233,408	Oct. 19	777	214	18	881
Forbes, William, Plainwell, Mich. Windmill.....	233,226	Oct. 12	528	147	18	832
Forbes, William D., New York, N. Y. Safety-valve.....	234,264	Nov. 9	539	147	18	1084
Forbes, William H. (See Dooley, Thomas B., assignor.)						
Ford, David. (See Morse, Robert A., assignor.)						
Ford, Eb C., et al. (See Bliss, George W., assignor.)						
Ford, Elizabeth, Pellville, Ky. Brush for greasing griddles.....	227,235	May 4	177	51	17	1606
Ford, Eugene, and J. T. Fellows, Rockford, Ill. Side-bar vehicle.....	223,496	Jan. 13	357	95	17	76
Ford, Harvey. (See Littlejohn, Charles F., assignor.)						
Ford, Joseph S., Philadelphia, Pa. Gas-burner.....	233,609	Oct. 26	1027	286	18	933
Ford, Rodney A., et al. (See Lamb, Charles, assignor.)						
Ford, Thomas J., Harmonsburg, Pa. Sewing-machine.....	228,992	June 22	1039	283	17	1410
Ford, William, Great Bend, Kans. Feeder for hay and straw burners.....	229,110	June 22	1161	318	17	1428
Foreman, Jacob, Ohio township, Madison county, Iowa. Churn.....	229,597	July 6	104	28	18	24
Foreman, J. Guy, Dallas City, Pa. Support for rubber shoes.....	228,338	June 1	206	57	17	1260
For, Peter, Somerville, Mass. Latch.....	234,866	Nov. 30	1310	353	18	1233
Forkel, Louis. (See Jakel, John, assignor.)						
Forknall, Thomas. (See Coryell, Edwin M., assignor.)						
Forknall, Thomas, New York, N. Y. Oscillating printing-machine.....	233,227	Oct. 12	529	147	18	833
Forman, William A. (See Gault and Forman.)						
Fornaseo, Domaneco, Belton, Tex. Boring-machine.....	234,764	Nov. 23	1173	316	18	1204
Forrest, David, Eastport, Me. Reaping and mowing machine.....	230,263	July 20	895	254	18	162
Forrester, John C. W., Boston, Mass. Refrigerator.....	232,341	Sept. 21	564	156	18	632
Forshaw, William, Chicago, Ill. Platform for vehicles.....	223,497	Jan. 13	359	95	17	76
Forshay, Jacob H., New York, N. Y. Skate.....	225,276	Mar. 9	342	100	17	528
Forshay, Jacob H., New York, N. Y. Skate-clamp.....	231,905	Sept. 7	33	7	18	530
Forshay, Jacob H., New York, N. Y. Corpse-preserver.....	235,863	Dec. 28	1003	278	18	1472
Forster, Albert G., New York, N. Y. Child's swing.....	235,758	Dec. 21	859	240	18	1439
Forsyth, Thomas P., Connellsville, Pa. Lamp shade and reflector.....	234,763	Nov. 23	1172	316	18	1204
Forsyth, Thomas P., Connellsville, Pa. Adjustable hand-brace for use in writing.....	235,520	Dec. 14	572	163	18	1335
Forsythe, John. (See Griffith and Byrne, assignors.)						
Fort, Wilson N., and J. A. Scott, Hurricane Hill, Ark. Steam-engine.....	227,753	May 18	775	219	17	1125
Fortier, Zephirin, (J. H. McMahon, administrator,) and C. H. Wyman, Fitchburg, Mass. Safety-paper and method of preparing the same.....	227,559	May 11	540	156	17	1078
Fortune, Leonard H. (See Hatch and Fortune.)						
Fory, Martin R., New York, N. Y., and W. L. Hegeman, Jersey City, N. J., assignors to M. R. Fory, New York, N. Y. Water-closet.....	229,112	June 22	1163	318	17	1428
Fosburgh, Calvin E., Brooklyn, N. Y. Child's carriage.....	234,016	Nov. 2	239	65	18	1025
Fosdyck, Joseph P., Augusta, Ill. Drag-saw.....	233,610	Oct. 26	1028	286	18	933
Fosgate, Daniel O., Rochester, Minn. Tug-buckle.....	228,255	June 1	115	33	17	1245
Foss, John F., Lowell, Mass. Flier for spinning-machines.....	228,809	June 15	815	223	17	1370
Foss, L. Bacon, assignor to Dover Stamping Company, Boston, Mass. Egg-beater.....	232,018	Sept. 7	172	45	18	552
Fossemaile, Aimé F. (See Granier and Fossemaile.)						
Foster, Charles R., Chicago, Ill. Rotary gang-plow.....	224,000	Feb. 3	43	13	17	210
Foster, Charles W., New Haven, Conn. Corset.....	229,598	July 6	105	28	18	24
Foster, Francis M., assignor to himself and E. Gallup, Coffeyville, Kans. Sulky-plow.....	226,739	Apr. 20	703	195	17	884
Foster, Henry S., Union City, Ind. Bosom-board.....	232,605	Sept. 28	880	243	18	692
Foster, James A. (See Bissell, David, assignor.)						
Foster, John M., Philadelphia, Pa. Gas-pressure regulator.....	227,234	May 4	176	51	17	1006
Foster, John T., Arlington, N. J. Temporary binder.....	224,164	Feb. 3	215	63	17	239

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Foster, Josiah R. (See Sullivan, Kessler, and Foster.)						
Foster, Macomb G. (See Clarke and Foster.)						
Foster, Merriam & Co. (See Merriman, Julius E., assignor.)						
Foster, Nathaniel H., St. Joseph, La. Plow.....	234,017	Nov. 2	240	65	18	1025
Foster, O. J. (See King, Herm A., assignor.)						
Foster, Oscar S., Utica, N. Y. Spring-bed.....	229,243	June 29	1301	359	17	1457
Foster, Samuel, Carthage, assignor of one-half to F. Champagne, Meriah, N. Y. Medicinal preparation for the hair.....	235,223	Dec. 7	200	.....	18	1314
Foster, Samuel L., and W. H. Benton, Philadelphia, Pa. Composite roof.....	227,682	May 18	687	196	17	1111
Foster, Samuel L., and W. H. Benton, Philadelphia, Pa. Composite roof. (Reissue).....	9,314	July 20	1054	298	18	188
Foster, Thomas M., Union City, Pa. Sash-fastener.....	224,891	Feb. 24	1087	311	17	427
Foster, Walter K., Stoncham, Mass. Mold for casting pencil-sharpener.....	235,626	Dec. 21	707	200	18	1414
Foster, William, Brooklyn, N. Y. Hat-pressing machine.....	226,393	Apr. 13	278	82, 83	17	807
Foster, William, Brooklyn, N. Y. Pressure-regulator.....	226,394	Apr. 13	279	83	17	807
Foster, William S., Kalamazoo, Mich. Harrow-tooth.....	227,683	May 18	689	196	17	1111
Foulk, Joseph L. (See Hughes and Foulk.)						
Foulke, Charles M., assignor of one-half interest to S. D. Wright, Philadelphia, Pa. Breast-harness.....	226,510	Apr. 13	431	120	17	829
Foulks, James G., et al. (See Bidwell, Martin A., assignor.)						
Fountain, Joseph G. (See Roth, Henry, assignor.)						
Fountain, Vincent, Stapleton, N. Y. Oven for kerosene-stoves.....	234,913	Nov. 30	1370	368	18	1243
Fouts, Lambert F., Greenfield, Iowa. Electric alarm.....	234,765	Nov. 23	1174	316	18	1204
Fowle, Joshua, Iowa City, Iowa. Wire-stretcher.....	224,892	Feb. 24	1087	312	17	428
Fowler, Ansen F., et al. (See Johnson, Asa, assignor.)						
Fowler, Arthur H., Zanesville, Ohio. Sectional water-tube boiler.....	233,228	Oct. 12	530	{ 147 148 }	18	833
Fowler, Azro, Mount Vernon, N. Y. Pneumatic action for musical instruments.....	231,786	Aug. 31	1381	390	18	496
Fowler, Edwin P., Brooklyn, N. Y. Spring bed-bottom.....	234,262	Nov. 9	537	147	18	1084
Fowler, Eugene A., et al. (See Robinson, James B., assignor.)						
Fowler, Francis, New Haven, Conn. Tricycle.....	224,165	Feb. 3	217	63	17	240
Fowler, Francis, New Haven, Conn. Tricycle.....	227,511	May 11	487	{ 140 141 }	17	1069
Fowler, Frank. (See Stock, Conrad, assignor.)						
Fowler, Frank P., Baraboo, Wis. Attachment for harness.....	229,111	June 22	1162	318	17	1428
Fowler, George, Philmont, N. Y. Mechanism for operating doffer-combs.....	231,160	Aug. 17	654	185	18	367
Fowler, Henry R., Leadville, Colo. Apparatus for medicating air.....	229,393	June 29	1489	410	17	1481
Fowler, John, Louisville, Ky. Change-valve.....	228,051	May 25	1131	322	17	1192
Fowler, John W., and D. F. Lewis, Brooklyn, N. Y. Passenger-register.....	231,161	Aug. 17	655	186	18	367
Fowler, Joseph C., assignor to himself and J. H. B. House, Arcola, Tex. Running-gear for wagons.....	229,994	July 13	566	157	18	101
Fowler, Maltby, Northford, Conn., assignor to R. Wallace. Making sheet-metal spoons. (Reissue).....	9,480	Nov. 23	1283	344	18	1222
Fowler Nail Company. (See Weaver, Loyd, assignor.)						
Fowler, Nathaniel C., Boston, Mass. Fire-proof material for linings safes, doors, shutters, &c.....	231,662	Aug. 31	1234	.....	18	473
Fowler, Thaddeus, Seymour, Conn. Hinge.....	234,018	Nov. 2	241	66	18	1025
Fowlkes, T. T. (See Haneline, Martin, assignor.)						
Fox, Cyrus D., Rescoe, Ill., assignor of one-half interest to W. H. Wheeler, Beloit, Wis. Combined plow and seeder or planter.....	230,627	Aug. 3	36	10	18	253
Fox, Edward, assignor to K. Egan, Brooklyn, N. Y. Steam cooking apparatus.....	224,672	Feb. 17	816	231	17	368
Fox, Edward, assignor to himself, K. Egan, Brooklyn, and J. L. Gerety, New York, N. Y. Distilling and rectifying apparatus.....	235,521	Dec. 14	573	163	18	1385
Fox, Edward P., Cambridge, Mass. Can.....	234,465	Nov. 16	796	214	18	1136
Fox, George B., Lockland, Ohio. Manufacture of paper.....	229,690	July 6	204	.....	18	38
Fox, George H. (See McKelvey, John W. and R. J., assignors.)						
Fox, Howard B., assignor of one-half to W. P. Thompson, Liverpool, England. Celluloid and other imitation collar, cuff, and front.....	234,665	Nov. 23	1063	286	18	1187
Fox, Norman L., Ceylon, Ohio. Carriage-top joint.....	229,312	June 29	1393	381	17	1469
Fox, Samson, Leeds, Great Britain. Machinery for corrugating metallic tubes.....	225,586	Mar. 16	712	210	17	600
Fox, Squire H., Florissant, assignor of one-half interest to W. H. Woodward, St. Louis, Mo. Machine for sprinkling potato-vines, &c.....	223,332	Jan. 6	148	38	17	27
Fox, William, assignor to himself and R. J. Beatty, Steubenville, Ohio. Manufacture of handled glassware.....	232,886	Oct. 5	111	30	18	756
Fox, Willard H., New Haven, Conn. Railway-velocipede.....	225,585	Mar. 16	711	{ 209 210 }	17	600
Fox, William L. (See Zeck, Michael, assignor.)						
Frace, Daniel D., Hornellsville, N. Y. Egg-tester.....	227,240	May 4	180	53	17	1007
Fraley, Samuel P., Columbus, Ohio. Broom.....	230,541	July 27	1248	352	18	226
Frambach, Henry A., Menasha, Wis. Wood-pulp machine.....	229,879	July 13	437	120	18	81
Frambach, Henry A., Menasha, Wis. Feed for wood-pulp mills.....	233,611	Oct. 26	1028	286	18	933
Frane, Henry. (See Campbell, Abraham A., assignor.)						
France, Arthur L., Allegheny, Pa. Buckle.....	227,755	May 18	777	219	17	1125
Frances, Casper S. (See Miller, Ephraim, assignor.)						
Frances, Smith. (See Rogers, Winfield S., assignor.)						
Francis, Smith. (See Rogers, Winfield S., assignor.)						
Frank, August H., Sheboygan, Wis. Straw-cutter.....	235,423	Dec. 14	448	127	18	1364
Frank, Jonas D., Hanover, Germany. Preserving wood.....	231,419	Aug. 24	951	268	18	422
Frank, David, Allentown, Pa. Car-coupling.....	226,396	Apr. 13	282	83, 84	17	807
Frank, Monroe, and A. Dickison, Bowlsusville, Ohio. Drag-saw machine.....	224,894	Feb. 24	1089	312	17	428
Frank, Samuel B., assignor of one-half interest to C. B. Wheelock & Co., Nashville, Tenn. Machine for cutting stone.....	227,758	May 18	780	220	17	1125
Franke, Theodore P., Buffalo, N. Y. Wrench.....	231,303	Aug. 17	822	230	18	394
Franke, Theodore P., Buffalo, N. Y. Steam-generator.....	232,255	Sept. 14	457	126	18	608
Frankel, Alexander C., assignor to J. Lagowitz, Newark, N. J. Trunk-fastener.....	233,229	Oct. 12	532	148	18	833
Frankenberg, Anthony M., Baltimore, Md. Electric signal apparatus for telephones.....	235,424	Dec. 14	450	{ 127 128 129 }	18	1364
Frankfeld, Arnold. (See Eisen, Hermann J., assignor.)						
Frankle, Jones, and C. E. Kelley, Haverhill, Mass. Electric call-bell.....	235,147	Dec. 7	104	30, 31	18	1299
Franklin, Albert and A., Westerville, Ohio. Grain-drill tooth.....	230,184	July 20	794	224	18	147
Franklin, Alvin. (See Franklin, Albert and A.)						
Franklin, James A., America, Ind. Weather-strip.....	232,957	Oct. 5	196	51	18	770
Franks, Henry H., Brownsville, Mo. Gate.....	227,161	May 4	68	24	17	992
Franta, Joseph F., Milwaukee, Wis. Plaiting-machine.....	224,285	Feb. 10	364	104	17	253

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Franta, Joseph F., assignor of one-half interest to M. Farnan: said Franta and Farnan assignors of one-third their interest to E. Marr, New York, N. Y. Distender for gaiters....	231,706	Aug. 31	1283	360	18	453
Franz, Therese, Berlin, Germany. Corset-clasp.....	224,413	Feb. 10	507	145	17	306
Franz, Therese, and H. Janssen, Berlin, Prussia, Germany; said Franz assignor to said Janssen. Corset-clasp.....	227,513	May 11	492	141	17	1670
Franzmann, Jacob, assignor of one-half to H. Varwig, Cincinnati, Ohio. Machine for shaping wooden shovels.....	235,352	Dec. 14	363	100	18	1349
Frary, James D., (See McGovern, Bernard, assignor.)						
Frary, James D., (See North, Albert H., assignor.)						
Frary, James D., Bridgeport, Conn. Pocket-cutlery.....	225,359	Mar. 9	451	132	17	545
Frary, James D., Bridgeport, Conn. Pocket-knife.....	226,994	Apr. 27	1016	282	17	946
Frary, James D., Bridgeport, Conn. Scissors.....	227,514	May 11	493	141	17	1070
Frary, James D., Bridgeport, Conn. Pocket-knife.....	227,556	May 18	778	230	17	1125
Frary, James D., Bridgeport, Conn. Carving-fork.....	228,884	June 15	899	245	17	1382
Frasch, Herman, assignor, by mesne assignments, to J. B. Merriam, Cleveland, Ohio. Apparatus for fractionally condensing oil-vapor.....	231,420	Aug. 24	952	269	18	422
Fraser, Alexander, Edinburgh, Scotland. Apparatus for composing types.....	224,166	Feb. 3	220	63, 64	17	240
Fraser, Alexander, Edinburgh, Scotland. Apparatus for distributing types.....	224,167	Feb. 3	222	64, 65	17	240
Fraser, Alexander, Edinburgh, Scotland. Type-composing machine.....	226,297	Apr. 6	172	50	17	777
Fraser, Edwin J., San Francisco, Cal. Galvanic belt.....	224,414	Feb. 10	508	146	17	306
Fraser, Edwin J., San Francisco, Cal. Galvanic belt.....	225,224	Dec. 7	200	54	18	1314
Fraser, Harry, New York, N. Y. Lead and crayon holder.....	223,498	Jan. 13	360	96	17	76
Fraser, Milton B., Rome, assignor to Whitman & Burrell, Little Falls, N. Y. Cheese-press. (Reissue).....	9,228	June 1	308	86	17	1276
Fraser, Milton B., Rome, assignor to Whitman & Burrell, Little Falls, N. Y. Cheese-hoop. (Reissue).....	9,375	Sept. 14	534	148	18	621
Frazer, J. A., et al., administrators. (See Eunis, James.) (Reissue.)						
Frazer, Samuel, Galena, Ill. Lubricant.....	233,497	Oct. 19	874	.....	18	897
Frazier, Walter S., Aurora, Ill. Sully.....	233,744	Oct. 26	1178	328	18	958
Frazier, Walter S., Aurora, Ill. Sully.....	233,745	Oct. 26	1179	328	18	958
Fredenbagen, Adolph, St. Charles, Ill. Germ-detacher for roller-mills.....	234,122	Nov. 9	367	101	18	1054
Frederick, Benjamin T., et al. (See Williams, William C., assignor.)						
Frederick, Levi W., Indianapolis, Ind. Whiffletree-clip.....	225,924	Mar. 30	1130	321	17	692
Fredericks, Andrew, Philadelphia, Pa. Water-tank for locomotive-tenders.....	232,020	Sept. 7	174	46	18	553
Fredericks, Christian A., Brooklyn, N. Y. Canister.....	225,818	Mar. 23	999	287	17	657
Free, Henry, Lewiston, Me. Combined door-plate and letter-receiver.....	231,031	Aug. 10	507	143	18	336
Free, Robert. (See Prendergast and Free.)						
Freeborn, Thomas W., and Z. Chase, Newport, R. I. Folding stand.....	229,600	July 6	107	29	18	25
Freeland, William, Brooklyn, N. Y. Whiffletree-hook.....	224,673	Feb. 17	817	231	17	368
Freeman, George, et al. (See Sneider, Charles, assignor.)						
Freeman, George W., Amboy, Ill. Refrigerator.....	223,499	Jan. 13	361	96	17	77
Freeman, George W., Rocky Point, Cal. Churn.....	229,599	July 6	106	28, 29	18	24
Freeman, Kasson, Grand Rapids, Mich. Fence-post-boring machine.....	227,757	May 18	779	220	17	1125
Freeman, Mary. (See Freeman, Simon J., assignor.)						
Freeman, Simon J., assignor to M. Freeman, New York, N. Y. Sash-fastener.....	229,995	July 13	567	157	18	102
Freeman, Wallace C., Fort Reno, Ind. Ter. Stove-pipe.....	228,883	June 15	898	245	17	1382
Freeman, William H. H., Newton, Kans. Harvester-reel.....	225,360	Mar. 9	452	132	17	545
Freer, Charles S., et al. (See Carlisle, Henry, Jr., assignor.) (Reissue.)						
Freer, Charles S. (See Riley and Freer.)						
Freese, Francis J., assignor to himself and W. E. Bass, Lawrence, Mass. Loom-shuttle....	233,925	Nov. 2	110	30	18	1005
Freese, John. (See Lothrop, Chauncey M., assignor.)						
Freese, Peter C., Cayuga, N. Y. Vehicle-spring.....	227,512	May 11	491	141	17	1070
Freieumuth, William, Lawrence, Kans. Millstone and spindle adjusting device.....	231,032	Aug. 10	507	143	18	336
Frelinghuysen, George G., Newark, N. J. Horse-rake.....	231,787	Aug. 31	1382	390	18	496
Frelinghuysen, George G., Newark, N. J. Twisting attachment for mowing-machines.....	231,788	Aug. 31	1384	390 391	18	496
Frelinghuysen, George G., Newark, N. J. Hay-gatherer.....	231,959	Sept. 7	108	27	18	541
Frelloehr, Julius, and F. Mahler, San Francisco, Cal. Washing-machine.....	226,909	Apr. 27	912	254	17	930
Frémanx, Raphael, Paris, France. Centrifugal sugar-machine.....	224,674	Feb. 17	818	231 232	17	368
French, Albert E., Detroit, Mich. Sash-fastener.....	228,523	June 8	435	119	17	1305
French, Alonzo C. (See Smith and French.)						
French, Andrew, Philadelphia, Pa. Roller-skate.....	225,361	Mar. 9	453	132	17	545
French, Andrew J., Kittery, Me. Fountain-brush.....	230,120	July 20	720	202	18	136
French, Charles L., Brooklyn, N. Y. Transmitting rotary motion.....	224,168	Feb. 3	226	66	17	241
French, Charles L., Brooklyn, N. Y. Device for transmitting rotary motion.....	224,169	Feb. 3	227	66	17	241
French, Charles L., New York, N. Y. Rowing-wagon.....	224,415	Feb. 10	509	146	17	306
French, Charles L., Brooklyn, N. Y. Driving mechanism for sewing-machines.....	227,515	May 11	493	142	17	1070
French, Evelyn F., New York, N. Y. Artist's board.....	229,244	June 29	1302	359	17	1457
French, Evelyn F., and M. C. Jeffers, New York, N. Y. Sound-deadening attachment for railway-cars.....	234,265	Nov. 9	541	147	18	1085
French, George N., Grafton, Vt. Vehicle-spring.....	225,925	Mar. 30	1130	322	17	692
French, Peter W., et al. (See Brock and Woodward, assignors.)						
French, Samuel L., Ligonier, Pa. Attachment for force-pumps.....	233,667	Oct. 26	1097	305	18	944
French, Stephen, assignor, by mesne assignments, to Gold Medal Sewing Machine Company, Orange, Mass. Sewing-machine. (Reissue).....	9,450	Nov. 9	671	183	18	1106
French, Stephen H., and W. J. Maltby, Belle Plain, Tex. Vehicle-wheel.....	233,498	Oct. 19	875	242	18	897
French, Theodore L., et al. (See Adams, Henry A., assignor.) (Reissue.)						
French, William, New York, N. Y. Kiln for burning pottery-ware and other articles.....	233,230	Oct. 12	533	148	18	833
French, William J., Carencro, La. Nut-lock.....	234,766	Nov. 23	1175	317	18	1204
French, William W., Stockbridge, Mass., assignor to himself, E. W. Peck, and C. B. Seuder. Thill-coupling.....	227,237	May 4	178	52	17	1006
Frentress, Henry N., East Dubuque, Ill. Revolving-body churn.....	227,230	May 4	179	52	17	1007
Frerk, John H. (See Page, Levi H., assignor.)						
Frese, Bernard, Chicago, Ill. Roller-abstracter for watches. (Reissue).....	9,467	Nov. 16	1027	275	18	1174
Frennd, Frank W. and G., Cheyenne, Wyo. Ter. Sight for fire-arms.....	229,245	June 29	1302	360	17	1457
Frennd, George. (See Frennd, Frank W. and G.)						
Frey, James H., New York, N. Y. Carriage-painter's stand.....	225,926	Mar. 30	1131	322	17	692
Friebertshauser, August, Beaver Falls, Pa. Clasp-knife.....	226,910	Apr. 27	914	254	17	930
Fried, George W., assignor of one-half to J. J. Sterner, Allentown, Pa. Thill-coupling.....	236,014	Dec. 28	1188	329	18	1502
Fried, Lazarus. (See Prah, Charles, assignor.)						
Fried, Lazarus, New York, N. Y. Toy watch and clock.....	227,516	May 11	494	142	17	1070
Friedberger, Henry. (See Stone, George F., assignor.)						



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Friedeborn, Charles, Clare, Mich. Domestic boiler.....	228,339	June 1	207	58	17	1260
Friedmann, Ernestine. (See Birckenstadt, Henry, assignor.)						
Friedrich, Hugo E. (See Wagner and Friedrich.)						
Friedrick, Alphonse, Brooklyn, N. Y. Window-sash.....	224,675	Feb. 17	819	232	17	309
Frik, Louis, Philadelphia, Pa. Oscillating printing-press.....	229,114	June 22	1164	319	17	1429
Frings, Gerhard, and R. Müller, Berlin, Prussia, Germany. Vacuum pumping apparatus.....	232,638	Sept. 28	918	{ 252 253 }	18	698
Frisbie, Dennis, assignor to himself, S. H. Baruum, and C. F. Root, New Haven, Conn. Elevator.....						
Frisbie, Edgar G., assignor to himself and H. W. Walldorf, Monroe, Mich. Stock-car.....	224,416	Feb. 10	511	146	17	307
Frison, Joseph, Hermon, N. Y. Side-bar wagon.....	227,754	May 18	776	219	17	1125
Fritsch, Carl E., St. Louis, Mo. Awning.....	226,298	Apr. 6	173	50	17	777
Fritz, Charles E., Oneonta, N. Y. Magnetic grain-separator.....	231,033	Aug. 10	509	143	18	336
Fritz, Charles E., Oneonta, N. Y. Magnetic grain-separator. (Reissue).....	223,901	Jan. 27	845	226	17	174
Fritz, Charles E., Oneonta, N. Y. Magnetic separating apparatus.....	9,229	June 1	310	87	17	1276
Fritzner, Nicolay, Berlin, Prussia, Germany. Bottle-stopper.....	232,956	Oct. 5	191	51	18	769
Fritzner, Nicolay, Berlin, Prussia, Germany. Bottle-stopper.....	223,283	Jan. 6	92	23	17	18
Frizell, Joseph P., Boston, Mass. Raising water.....	229,815	July 13	365	101	18	70
Froelich, John, Beulah, Iowa. Stock-car.....	233,499	Oct. 19	875	242	18	897
Froh, George, assignor to J. Spear, Philadelphia, Pa. Stove-grate. (Reissue).....	232,256	Sept. 14	458	126	18	608
Fromentin, Edouard, Paris, France. Steam-boiler-feeding apparatus.....	9,463	Nov. 16	1023	274	18	1173
Fromm, Albert F., Canton, Ohio. Plow attachment.....	225,005	Mar. 2	25	7, 8	17	461
Frost, Charles W., Philadelphia, Pa. Building-block.....	226,657	Apr. 20	616	172	17	870
Frost & Co., George. (See Eastman, Joseph H., assignor.) (Reissue.)	228,052	May 25	1132	322	17	1193
Frost, George, et al. (See Gray, Robert W., assignor.)						
Frost, George, et al. (See Wardwell, William S., assignor.) (Reissue.)						
Frost, George A., et al. (See Gray, Robert W., assignor.)						
Frost, George A., et al. (See Wardwell, William S., assignor.) (Reissue.)						
Frost, John B., Naperville, Ill. Grain-sampler.....	230,121	July 20	721	202	18	136
Frost, Mahlon S., Philadelphia, Pa. Process and apparatus for manufacturing gas.....	226,397	Apr. 13	284	84	17	807
Frost, Stiles. (See Healey, Joseph S., assignor.)						
Frue, William B., and W. McDermott, Detroit, Mich. Manufacture of flexible belting.....	226,843	Apr. 27	832	231	17	917
Früs, Nils, Hoboken, N. J., and G. N. Fenn, New York, N. Y. Theft-detector.....	233,743	Oct. 26	1177	327	18	958
Fry, Charles H., Jr., assignor of three-fourths to C. S. S. Baron, J. M. Marring, and J. B. McCormick, Bellaire, Ohio. Lantern.....	234,767	Nov. 23	1176	317	18	1204
Fry, George A., Defiance, Iowa. Grain-meter.....	226,511	Apr. 13	432	121	17	830
Fry, Stephen D., Attica, Ind. End-gate for wagons.....	224,417	Feb. 10	513	146	17	307
Fry, Stephen D., Attica, Ind. Stump-extractor.....	227,238	May 4	179	52	17	1007
Fryer, James. (See McAvoy, Hugh L., assignor.)						
Fryer, John O., Lowell, Mass. Suspender-strap webbing.....	230,122	July 20	722	202	18	136
Fryer, Robert M., San Francisco, Cal. Buoyant propeller-ship.....	233,086	Oct. 12	356	97, 98	18	803
Fryer, William J. (See Lally, Michael, assignor.)						
Fryer, William J., Jr., New York, N. Y. Foot-scraper.....	224,774	Feb. 24	951	271	17	406
Fryer, William J., Jr., New York, N. Y. Iron column.....	224,775	Feb. 24	952	271	17	406
Fryer, William J., Jr., New York, N. Y. Joint for cement illuminating-tiles for roofs and pavements.....						
Fryer, William J., Jr., New York, N. Y. Fastening for iron shutters.....	230,931	Aug. 10	394	114	18	319
Fryer, William J., Jr., New York, N. Y. Arch-girder.....	230,932	Aug. 10	395	114	18	319
Fryer, William J., Jr., New York, N. Y. Arch-girder.....	230,933	Aug. 10	396	114	18	319
Fryer, William J., Jr., New York, N. Y. Illuminating-tile for roofs and pavements.....	235,677	Dec. 21	760	216	18	1423
Fudickar, Gustavus A., Cincinnati, Ohio. Substitute for hard rubber.....	226,844	Apr. 27	833		17	917
Fugate, Thomas, Cincinnati, Ohio. Composition roof.....	223,671	Jan. 20	570	153	17	120
Fuldner, Albert, St. Louis, Mo. Beer-bung.....	223,515	Mar. 16	638	186	17	586
Fulghum, Jesse P., assignor to himself and Wayne Agricultural Company, Richmond, Ind. Grain-drill. (Reissue).....	9,341	Aug. 10	627	177	18	356
Fuller, Abbott F., et al. (See Shinn, John, assignor.)						
Fuller, Arthur. (See Johnson, Joseph B., assignor.) (Reissue.)						
Fuller Electrical Company. (See Fuller and Mackintosh, assignors.)						
Fuller Electrical Company. (See Keith, Nathaniel S., assignor.)						
Fuller Electrical Company. (See Moffatt, Richard R., assignor.)						
Fuller Electrical Company. (See Wood, James J., assignor.)						
Fuller, Franklin P., Mount Vernon, Ohio, assignor of one-half interest to S. D. Roberts. Harrow.....	226,448	Apr. 13	350	100	17	817
Fuller, George W., New York, and E. D. Mackintosh, Brooklyn, N. Y., assignors to Fuller Electrical Company. Electric lamp.....	229,246	June 29	1303	360	17	1457
Fuller, Henry, Franklin, Ohio. Fire-escape.....	226,449	Apr. 13	351	100	17	817
Fuller, Henry W., Seneca, Kans. Harness-buckle.....	227,759	May 18	781	820	17	1125
Fuller, Joseph K. (See Hunter, William S., assignor.)						
Fuller, Levi K., assignor to J. Estey & Co., Brattleborough, Vt. Organ-bellows.....	228,053	May 25	1133	322	17	1193
Fuller, Levi K., Brattleborough, Vt. Electro-magnet.....	232,398	Sept. 21	636	176	18	644
Fuller, Samuel A., Jr., Derry, N. H. Hub-attaching device.....	225,819	Mar. 23	1000	287	17	657
Fuller, Samuel S. (See Keane, William, assignor.)						
Fuller, Thomas R. (See Wells, Henry M., assignor.)						
Fullerton, William J. (See O'Donel, Irwin M., assignor.)						
Fulton, Albert K., Baltimore, Md. Spacing and dividing instrument.....	235,225	Dec. 7	202	55	18	1314
Fulton, Calvin, deceased, assignor, by mesne assignments, to J. S. Perry and G. Sard, Jr., trustees, Albany, N. Y. Stove. (Reissue).....	9,252	June 15	995	270	17	1396
Fulton, Charles, New York, N. Y. Manufacturing paper-pulp from pine-leaves.....	224,170	Feb. 3	228		17	241
Fulton, James C., Rockport, Tex. Governor for water-elevators.....	228,524	June 8	436	119	17	1305
Fulton, Joseph W., et al. (See Sargent, Calvin J., assignor.)						
Fulton, J. W., et al. (See Sargent, Calvin J., assignor.)						
Fulton, Louis B., Pittsburg, Pa. Water-ejector.....	231,789	Aug. 31	1387	391	18	497
Fulton, Samuel M., Pittsburg, Pa. Feed-water heater.....	232,342	Sept. 21	565	156	18	632
Fulton, William H., deceased, J. F. Arnold, administrator, and assignor to E. J. Hale, Foxcroft, Me. Tubular lantern.....	230,391	July 27	1077	303	18	198
Fults, John, Washington Court-House, Ohio. Manufacture of pottery-ware and mortar.....	224,895	Feb. 24	1090		17	428
Funkhouser, George P. (See Russell, John, assignor.)						
Furber, Edward G., et al. (See Lighthall, William A., assignor.)						
Furbish, Clinton, Brooklyn, N. Y. Filter-press.....	223,333	Jan. 6	149	38	17	27
Furbish, Clinton, Brooklyn, N. Y. Manufacturing glucose.....	226,398	Apr. 13	286		17	808
Furbish, Isaiah M., Augusta, Me., assignor to W. H. Johnson, Melrose, Mass. Mechanical musical instrument.....	233,147	Oct. 12	437	120	18	817
Furbush, Merrill A., Philadelphia, Pa., and B. F. Meyer, Camden, N. J., assignors to said Furbush. Machine for milling drop-boxes for looms.....	229,115	June 22	1166	319	17	1429



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Furlong, Thomas T., Chicago, Ill. Bridle-bit.....	225,751	Mar. 23	924	267	17	645
Furman, Samuel M., Henderson, Ky. Hitching-post.....	224,083	Feb. 3	132	38	17	225
Furney, Elliott E., assignor of one-half interest to D. L. Slidmore and C. C. Harris, St. Louis, Mo. Hatchway.....	223,234	Jan. 6	93	23	17	18
Furney, Elliott E., St. Louis, Mo. Apparatus for checking the waste of water.....	232,483	Sept. 21	740	205	18	661
Fuston, Henderson T., and W. G. Cummins, McMinnville, Tenn. Horse-detacher.....	229,116	June 22	1168	320	17	1429
Fyfe, Alexander M., assignor to Globe Woolen Company, Utica, N. Y. Textile fabric.....	227,241	May 4	181	53	17	1007
Gaar, Abram, Richmond, Ind., assignor to Gaar, Scott & Co. Portable engine.....	235,077	Dec. 7	19	5	18	1284
Gaar, Scott & Co. (See Gaar, Abram, assignor.)						
Gabel, Alfred N., Sr., Ridgerville, Ill. Fertilizer-distributing attachment for planters.....	229,394	June 29	1490	410	17	1481
Gable, John H., assignor to himself and R. Jones, Shamokin, Pa. Pipe-cleaner.....	226,740	Apr. 20	704	195	17	885
Gadsden, Henry A. (See Brook, Edward, assignor.)						
Gaff, Gent & Thomas. (See Gent, Joseph F., assignor.)						
Gage, Charles M., Nashua, N. H. Machine for the manufacture of card and collar board.....	234,266	Nov. 9	541	148	18	1085
Gage, Eli C., Whitehall, Wis., assignor to himself and D. Bannerman, Menominee, Mich. Grain and cockle separator.....	234,958	Nov. 30	1425	383	18	1252
Gage, Hiram J., L. Eggleston, and G. J. Spaulding, Kalamazoo, Mich. Machine for making harrow-teeth.....	224,526	Feb. 17	642	184	17	339
Gage, James P., Traer, Iowa. Harrow.....	223,334	Jan. 6	150	38	17	27
Gaheart, Charles K. (See Thurston, Adnah, assignor.)						
Gail, Daniel H., assignor of two-thirds interest to S. McNeill and R. S. McEntire, Burlington, Iowa. Machine for forming conical wire springs.....	228,624	June 8	561	149	17	1323
Gail, Harry S., assignor to himself and G. Kirk, Waukegan, Ill. Well-boring apparatus.....	229,996	July 13	568	157	18	102
Gaillard, Edwin S. (See Johnson, William F., assignor.)						
Gaines, George B., Mount Vernon, assignor to himself and J. E. Landers, Indianapolis, Ind. Hominy-mill.....	233,341	Oct. 19	691	189	18	867
Galbraith, Robert, Green Island, assignor to N. S. Vedder Pattern Works, Troy, N. Y. Reservoir cook-stove.....	228,454	June 8	346	95	17	1292
Galbraith, William A., Flint, Mich. Carriage-pole.....	224,171	Feb. 3	229	66	17	241
Gale, Frank E. (See Hanrahan, Edward, assignor.)						
Gale, George, Stanstead, Quebec, Canada. Machine for coiling wire.....	230,123	July 20	723	202	18	136
Gale, Herbert N., and W. L. Wright, Bristol, Conn. Band-saw connection.....	230,934	Aug. 10	397	115	18	319
Gale, Horatio, Albion, Mich. Spring-tooth harrow.....	228,054	May 25	1134	323	17	1193
Gale Manufacturing Company. (See Elmer, Charles H., assignor.)						
Gale, Moses F., Brooklyn, N. Y. Water-closet.....	225,362	Mar. 9	454	{ 132 } 133	17	545
Gallagher, Richard D., and C. Douglas, Detroit, Mich.; said Gallagher assignor to said Douglas. Broom.....	232,958	Oct. 5	197	51	18	770
Gallagher, Elizabeth, Bradford, Pa. Steam-cooker.....	232,701	Sept. 28	990	272	18	710
Galland, Abraham. (See Kirkup, Lancelot, assignor.)						
Gallatin, Albert. (See Alderson and Loftus, assignors.)						
Galloway, Charles J., and J. H. Beckwith, Manchester, England. Friction-clutch.....	226,302	Apr. 6	177	51, 52	17	778
Galloway, Frank B., Farm Ridge, Ill. Car-mover.....	235,759	Dec. 21	860	240	18	1439
Galloway, Thomas, and J. Larsen, Oshawa, Ontario, Canada, assignors to W. H. Field, Port Chester, N. Y. Horse hay-rake.....	229,530	July 6	28	7	18	12
Gallup, Elisha. (See Foster, Francis M., assignor.)						
Galvin, Joseph D., et al. (See Glover, William H., assignor.)						
Gamble, John. (See Fisher and Gamble.)						
Gamewell Fire Alarm Telegraph Company of New York. (See Gardiner, James M., assignor.)						
Gammill, George W., assignor of one-half interest to J. W. and K. B. Alford, La Fayette, Ala. Plow.....	228,885	June 15	899	246	17	1382
Gammon, George F., Jr., et al. (See Patterson and Hale, assignors.)						
Gandolfo, Emanuel. (See Raffinetti, Austin, and Gandolfo.)						
Gandy, Alonzo. (See Wilson, Gandy, and Shugert.)						
Gandy, Alonzo, and J. R. Shugert, Freeport, Ohio. Hub for vehicle-wheels.....	234,020	Nov. 2	243	66	18	1026
Gandy, Manrice. (See Brittain and King, assignors.)						
Gandy, Maurice, Liverpool, Great Britain. Cotton belting and process of manufacture.....	228,186	June 1	27	9, 10	17	1231
Gannon, Thomas, Jersey City, N. J. Cooling water for evaporating and distilling apparatus.....	226,300	Apr. 6	175	51	17	778
Gano, John A., et al. (See Fisher, William M., assignor.)						
Ganster, George P., Reading, Pa. Street-lamp.....	227,760	May 18	781	221	17	1126
Ganster, George P., Reading, Pa. Combined clock-winding and gas-cock mechanism.....	234,557	Nov. 16	905	243	18	1154
Gants, William H. (See Milne and Gants.)						
Gantzhorn, Carl, New York, N. Y. Stop-watch.....	234,768	Nov. 23	1178	317	18	1205
Garatt, John F., Spencer, N. Y. Windmill.....	234,975	Nov. 30	1447	389	18	1255
Gardam, Frederick W., et al. (See Gardam, Joseph, assignor.)						
Gardam, Joseph, assignor of two-thirds to W. and F. W. Gardam, Brooklyn, N. Y. Dipping-needle.....	234,110	Nov. 2	339	93	18	1043
Gardam, William, et al. (See Gardam, Joseph, assignor.)						
Gardiner, James H., Worcester, Mass., assignor to C. D. Bigelow, Brooklyn, N. Y. Machine for inserting screws in boots and shoes.....	226,303	Apr. 6	178	52	17	778
Gardiner, James M., Hackensack, N. J., assignor to Gamewell Fire Alarm Telegraph Company of New York. Fire-alarm-telegraph signal-box.....	225,588	Mar. 16	716	211	17	601
Gardiner, James M., Hackensack, N. J. Electric fire-alarm signal-box.....	232,343	Sept. 21	567	156	18	633
Gardner, Christian E., Orangeburg, S. C. Seed-planter and fertilizer-distributor.....	236,015	Dec. 28	1189	329	18	1502
Gardner, Frederick, Bryswater, England. Pendulum-berth.....	225,006	Mar. 2	28	8	17	461
Gardner, Frederick A., assignor of one-half interest to R. Dunbar & Son, Buffalo, N. Y. Triple-cylinder engine.....	226,055	Mar. 30	1292	{ 364 } 365	17	717
Gardner, Frederick A., assignor of one-half interest to R. Dunbar & Son, Buffalo, N. Y. Steam-generator.....	230,124	July 20	724	203	18	136
Gardner, Frederick A., assignor to himself and R. Dunbar & Son, Buffalo, N. Y. Coffee or rice mill.....	234,019	Nov. 2	242	66	18	1025
Gardner, George, Westfield, N. J., assignor, by mesne assignments, to O. L. W., and J. E. Gardner. Chair-seat. (Reissue).....	9,094	Feb. 24	1178	337	17	442
Gardner, George, Westfield, N. J. Boring-machine. (Reissue).....	9,114	Mar. 9	561	162	17	563
Gardner, George D., and S. D. Randall, Warren, Ohio. Flour-bolt.....	226,301	Apr. 6	176	51	17	778
Gardner, James S. (See Firmbach, John, assignor.)						
Gardner, Jane E., et al. (See Gardner, George, assignor. (Reissue.)						
Gardner, John, assignor to Winchester Repeating Arms Company, New Haven, Conn. Cartridge.....	226,167	Apr. 6	22	6	17	750
Gardner, John, assignor to Winchester Repeating Arms Company, New Haven, Conn. Primer for cartridges.....	230,412	July 27	1099	309	18	201
Gardner, Oliver L., et al. (See Gardner, George, assignor.) (Reissue.)						
Gardner, Pliny F., Hill's Ferry, Cal. Tap and faneet.....	233,668	Oct. 26	1098	305	18	944
Gardner, Rio, Westerly, R. I. Propeller.....	234,267	Nov. 9	542	148	18	1085

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Gardner, Robert H. (See Robinson, Edgar, assignor.)						
Gardner, Robert J., assignor of one-third interest to W. L. Lutner and J. Hook, Rockdale, Tex. Drag-sawing machine.	230,766	Aug. 3	193	56	18	278
Gardner, William, <i>et al.</i> (See Gardner, George, assignor.) (Reissue.)						
Gardner, William, and E. G. Parkhurst, assignors to Pratt & Whitney Company, Hartford, Conn. Cartridge-feeder for machine-guns.	235,627	Dec. 21	708	{ 200 201 }	{ 18 18 }	{ 1414 1414 }
Gareis, Anton, Pola, Austria. Mariner's compass.	227,972	May 25	1047	298	17	1179
Garland, Howard P., West Berkeley, assignor of one-third interest to A. J. Gove, San Francisco, Cal. Wooden box.	232,887	Oct. 5	113	30	18	756
Garland, William W., Henderson Station, Tenn. Horse-power.	232,484	Sept. 21	742	206	18	661
Garlick, Charles, Syracuse, N. Y. Shutter-fastener.	225,470	Mar. 16	586	170	17	578
Garnire, Monroe, Three Rivers, assignor of two-thirds interest to D. Gerber & Sons, Fremont, Mich. Feed-steamer.	227,973	May 25	1048	298	17	1179
Garnett, Walter, and T. Smith, Halifax, England. Apparatus for preventing waste in spinning.	232,021	Sept. 7	175	46	18	553
Garoutte, William B., Republic, Mo. Cotton and seed planting machine.	224,418	Feb. 10	513	147	17	307
Garratt, William T., San Francisco, Cal. Uniting the two halves of cylinders.	230,413	July 27	1100	309	18	201
Garratt, William T. (See Stockman, John M., assignor.)						
Garretson, Oliver S., Buffalo, N. Y. Extension-table slide.	229,037	June 22	1080	295	17	1417
Garretson, W. C., Knoxville, Iowa, and E. Draper, assigners, by mesne assignment, to H. Wickham, Jr., Chicago, Ill. Branding-stamp. (Reissue.)	9,311	July 20	1047	296	18	187
Garrett, Joseph E., Davenport, Iowa. Gate.	230,542	July 27	1249	352	18	227
Garrett, Robert, <i>et al.</i> (See Hadden, William, assignor.)						
Garrett, Samuel L. (See Waitt, George L., assignor.)						
Garrett, Samuel L. P., Lewisburg, Tenn. Railway-gate.	226,299	Apr. 6	174	50	17	777
Garrett, Sylvester, Philadelphia, Pa. Paper-fringing machine.	223,750	June 15	734	202	17	1359
Garrett, Sylvester, Philadelphia, Pa. Machine for fringing paper.	234,399	Nov. 16	717	{ 193 194 }	{ 18 18 }	{ 1123 1123 }
Garrigus, Culberson S., Winchester, assignor of one-half interest to J. Purcell, Frederick County, Va. Combination-tool.	225,587	Mar. 16	715	211	17	601
Garrigus, Culberson S., assignor of one-half interest to J. Purcell, Winchester, Va. Combination-tool.	233,342	Oct. 19	693	190	18	867
Garrigus, Lewis, assignor of one-half interest to R. Berry, Waterville, Conn. Lock-washer for nuts.	229,601	July 6	108	29	18	25
Garrison, Mancelia L., deceased, New York, N. Y., (M. F. Garrison, administratrix.) Valve for oscillating engines.	235,864	Dec. 28	1005	278	18	1472
Garrison, Mary F., administratrix. (See Garrison, Mancelia L.)						
Garsed, Robert P., Norristown, Pa. Automatic railway-switch.	234,178	Nov. 9	433	117	18	1066
Garsed, Robert P., Norristown, Pa. Mechanical movement.	225,628	Dec. 21	709	201	18	1414
Garside, Irad L., Paterson, N. J. Sleeve-button.	230,473	July 27	1178	332	18	214
Garver, Alfred R. (See Hemenway, Haney, assignor.)						
Garver, David L., Hart, Mich., assignor to D. C. & H. C. Reed & Co. Harrow. (Reissue.)	9,148	Apr. 13	509	143	17	842
Garvey, Walter J., St. Louis, Mo. Lathing and plastering.	226,056	Mar. 30	1293	365	17	718
Gaskill, Edson M., Edenton, Ohio. Rocking-chair churning-machine.	233,500	Oct. 19	876	242	18	897
Gaskill, Harvey F., Lockport, N. Y. Pump-valve.	229,881	July 13	439	121	18	82
Gaskill, Harvey F., Lockport, N. Y., and J. G. Benton, Titusville, Pa. Oil-pump.	233,231	Oct. 12	534	149	18	833
Gassaway, Theodore, Baltimore, Md. Manufacture of starch.	235,053	Nov. 30	1537		18	1271
Gassett, Oscar, and I. Fisher, Boston, Mass. Connector for electric track-circuits.	227,102	May 4	14	4	17	980
Gassett, Oscar, Boston, Mass. Electric railway-signal apparatus.	228,187	June 1	29	10, 11	17	1232
Gassett, Oscar, Boston, Mass. Electric signal for railways.	228,455	June 8	349	96	17	1292
Gassett, Oscar, and I. Fisher, Boston, Mass., assignors to Union Electric Signal Company. Circuit-controlling apparatus for railway-switch signals.	232,344	Sept. 21	569	157	18	633
Gassett, Oscar, and I. Fisher, Boston, Mass., assignors to Union Electric Signal Company. Railway signal apparatus.	233,612	Oct. 26	1029	{ 286 287 }	{ 18 18 }	{ 933 933 }
Gassett, Oscar, Boston, Mass. Electric railway-signaling apparatus.	233,746	Oct. 26	1181	328	18	959
Gassett, Oscar, Boston, Mass., assignor to Union Electric Signal Company. Electrical signal apparatus for railways.	234,707	Nov. 23	1108	298	18	1194
Gastard, Victor, assignor to himself and W. H. McNeill, New York, N. Y. Apparatus for obtaining fat from animal substances.	231,555	Aug. 24	1103	309	18	445
Gaston, George H., and M. Campbell, Fewlorville, Mich. Meter for operating pumps.	230,474	July 27	1179	332	18	215
Gaston, N. A., <i>et al.</i> (See Real, John, assignor.)						
Gates, Charles, Cleveland, Ohio. Lawn-mower.	227,162	May 4	89	24	17	992
Gates, George W., and B. F. Potter, Grand Rapids, Mich., assignors of one-half interest to C. B. Judd. Carpet-sweeper.	226,512	Apr. 13	433	121	17	830
Gates, George W., assignor of three-fourths to C. B. Judd and B. F. Potter, Grand Rapids, Mich. Carpet-sweeper.	234,021	Nov. 2	244	66	18	1026
Gates, John, Portland, Oreg. Steam or hydraulic steering apparatus.	223,804	Jan. 27	730	197	17	157
Gates, John, Portland, Oreg. Steam or hydraulic steering apparatus. (Reissue.)	9,200	May 18	902	{ 257 258 }	{ 17 17 }	{ 1146 1146 }
Gates, John, Portland, Oreg. Steering-lever.	229,880	July 13	438	120	18	81
Gates, William H., Philadelphia, Pa. Flexible shaft and sheath.	225,516	Mar. 16	638	186	17	586
Gathmann, Louis, Chicago, Ill. Brush grain-cleaner.	227,890	May 25	947	271	17	1164
Gathmann, Louis, Chicago, Ill. Apparatus for scouring and cleaning grain.	227,891	May 25	949	{ 271 272 }	{ 17 17 }	{ 1164 1164 }
Gathmann, Louis, Chicago, Ill. Bran-cleaner.	228,340	June 1	207	58	17	1260
Gathmann, Louis, Chicago, Ill. Bolting apparatus for flour-mills.	228,751	June 15	735	{ 202 203 }	{ 17 17 }	{ 1359 1359 }
Gathright, Josiah B., assignor to himself, J. J. Harbison, and O. Gathright, Jr., Lewisville, Ky. Mail-bag.	235,760	Dec. 21	860	240	18	1439
Gathright, Owen, Jr., <i>et al.</i> (See Gathright, Josiah B., assignor.)						
Gatrell, Docket W., West Union, W. Va. Combined boot-jack and stand.	235,054	Nov. 30	1538	414	18	1271
Gatto, Domenico. (See Barnes, John H., assignor.)						
Gault, James W., and W. A. Forman, Murphysville, Ky. Tobacco-elevator.	224,172	Feb. 3	230	66	17	241
Gavitt, James A., Dayton, Wash. Ter. Harness-buckle.	231,304	Aug. 17	822	231	18	394
Gawler, George A., Columbus, Ohio. Fire-alarm-telegraph box.	232,702	Sept. 28	991	273	18	710
Gay, Ebenezer R., Dubuque, Iowa. Relishing-machine.	223,500	Jan. 13	361	96	17	77
Gaylord, Edward L., Bridgeport, Conn. Machine for drawing and cutting ovals.	234,268	Nov. 9	543	148	18	1085
Gaylord, Robert F., Hartford, Conn. Erasive tablet.	230,700	Aug. 3	121	35	18	266
Gear, Alonzo S., New York, N. Y. Branding-stamp.	223,902	Jan. 27	850	226	17	175
Gear, Alonzo S., New York, N. Y. Branding-stamp.	223,903	Jan. 27	853	227	17	175
Gear, Alonzo S., New York, N. Y. Belt for transmitting power.	227,163	May 4	90	24	17	992
Gear, Alonzo S., New York, N. Y. Pyro-canceling device.	227,423	May 11	388	114	17	1052
Gear, Alonzo S., New York, N. Y. Pyro-canceling device.	227,424	May 11	390	{ 114 115 }	{ 17 17 }	{ 1052 1052 }
Gear, Giles F., Cleveland, Ohio. Car-axle box.	232,811	Oct. 5	17	5	18	741

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Gear, Samuel W., Cambridgeport, assignor to Dover Stamping Company, Boston, Mass. Machine for bending sheet-metal tubes.....	230,125	July 20	725	203	18	136
Gearon, John, Beloit, Iowa. Seythe-snath.....	235,425	Dec. 14	457	129	18	1365
Gearon, John, Beloit, Iowa. Tool-handle.....	235,426	Dec. 14	457	129	18	1365
Geddes, James W., Baltimore, Md. Heating and ventilating apparatus.....	228,188	June 1	34	11	17	1232
Geddes, James W., Baltimore, Md. Skylight.....	232,399	Sept. 21	638	176	18	644
Gee, Cornelius C. (See Dennen, Du Bois, Gee, and Pettigrove.)						
Gee, John H., assignor of one-half interest to J. H. Van Valen, Cortland Village, N. Y. Shears for cutting metal.....	227,684	May 18	689	196	17	1112
Gehr, John, Clear Spring, assignor of two-thirds interest to P. J. Sowers and O. T. B. Wolford, Washington County, Md. Churn.....	225,007	Mar. 2	28	8	17	461
Gehrig, Joseph K. (See Prinz, Faustin, assignor.)						
Gehrt, Albert A., Quincy, Ill., assignor to P. K. Dederick, Albany, N. Y. Baling-press.....	232,400	Sept. 21	639	176	18	645
Geier, Charles J. (See Lincoln, Elsha W., assignor.)						
Geiger, Cornelius, Tarborough, Ga. Grain-rick frame.....	225,589	Mar. 16	718	211	17	601
Geiger, Jacob, Bucyrus, Ohio. Bail and rim bending machine.....	227,425	May 11	394	115	17	1053
Geiger, Jacob, Bucyrus, Ohio. Machine for forming eyes on wire bails.....	234,022	Nov. 2	245	67	18	1026
Geiser, Daniel, Waynesborough, Pa. Grain and seed separator.....	225,696	Mar. 23	856	249 } 250 } 299 }	17 }	634 }
Geiser, Daniel, Waynesborough, Pa. Thrashing-machine.....	234,708	Nov. 23	1110	300 }	18 }	1194 }
Geisinger, John, assignor of one-half interest to P. D. Harton, Philadelphia, Pa. Shaft-coupling.....	223,335	Jan. 6	151	39	17	27
Gelatt, Wallace W. (See Keating, Clarke, and Gelatt.)						
Geldreich, Joseph, assignor to G. Doerr, Cincinnati, Ohio. Dies for forming watch-case centers.....	235,353	Dec. 14	365	100 } 101 }	18 }	1350 }
Gelletly, James F., Baltimore, Md. Pump.....	224,331	Feb. 10	414	118	17	291
Gelvin, John, assignor of one-half to W. M. Dight, Mercer, Pa. Machine for upsetting iron.....	233,747	Oct. 26	1184	329	18	959
Gemmell, Alexander, and A. Boyd, Toronto, Ontario, Canada. Boot and shoe.....	233,148	Oct. 12	438	120	18	817
Gemmill, Joseph S. (See Hummer and Gemmill.)						
Genoways, Clinton L., Schell City, Mo. Tire-tightener.....	235,610	Dec. 14	684	195	18	1403
Gent, Joseph F., assignor to himself, Gaff, Gent & Thomas, Columbus, Ohio. Prepared cereal.....	223,847	Jan. 27	782	.....	17	164
Gentil, Constant, St. Louis, Mo. Brake for railway-cars.....	228,752	June 15	736	203	17	1360
Geoghagan, James J., Westerly, R. I. Retracting device for the picker-sticks of looms.....	231,305	Aug. 17	823	231	18	394
Geoghagan, Samuel, Dublin, Ireland. Driving mechanism for street-locomotives, &c.....	226,230	Apr. 6	97	25, 26	17	763
George, Jacob, North Liberty, Iowa. Fertilizer and manure distributor.....	230,871	Aug. 10	331	96	18	309
George, W. G., et al. (See Blowney, Henry J., assignor.)						
George, William H., et al. (See Curry, William M., assignor.)						
Gerald, Amos F., Fairfield, assignor of two-thirds interest to W. Harvey, Augusta, and J. R. Bodwell, Hallowell, Me. Nail-extractor.....	232,703	Sept. 28	992	273	18	711
Gerard, August, Soignies, Belgium. Machine for shaving and fleshing hides and skins.....	224,286	Feb. 10	365	104	17	283
Gerard, William L., Junction City, Kans. Tether.....	229,691	July 6	204	56	18	38
Gerber, Andrew, et al. (See Gerber, William, assignor.)						
Gerber, Joseph, et al. (See Gerber, William, assignor.)						
Gerber & Sons, D. (See Garmire, Monroe, assignor.)						
Gerber, William, Fremont Centre, Mich., assignor to himself, J. and A. Gerber. Unhairing-machine.....	227,974	May 25	1049	299	17	1179
Gerding, John G., Collinsville, Ill. Safety-stop for elevators.....	235,354	Dec. 14	367	101	18	1350
Gerety, Joseph L., et al. (See Fox, Edward, assignor.)						
Gergerie, W. H. (See Boss, Henry, assignor.)						
Gerhard, P. H. (See McCall, John L., assignor.)						
Gerken, Heinrich, New York, N. Y. Chamber-pail.....	233,669	Oct. 26	1098	305	18	945
Gerner, Henry, assignor to Heveenoid Manufacturing Company, New York, N. Y. Treatment of india-rubber, &c.....	226,057	Mar. 30	1294	.....	17	718
Gerner, Henry, assignor to Heveenoid Manufacturing Company, New York, N. Y. Manufacture of goods from caoutchouc, &c.....	226,058	Mar. 30	1296	.....	17	718
Gerner, Henry, assignor to Heveenoid Manufacturing Company, New York, N. Y. Manufacture of vulcanized india-rubber compounds.....	229,038	June 22	1081	.....	17	1417
Gerner, Henry, assignor to Heveenoid Manufacturing Company, New York, N. Y. Manufacture of vulcanized india-rubber products.....	229,817	July 13	367	.....	18	70
Gerry, James H., Newark, N. J., assignor to Harvard Clock Company, Boston, Mass. Clock.....	236,016	Dec. 28	1190	329	18	1502
Gerry, James H., Newark, N. J., assignor to Harvard Clock Company, Boston, Mass. Winding attachment for clocks.....	236,017	Dec. 28	1191	329	18	1502
Gesley, Saber, Beloit, Wis. Sulky-plow.....	229,816	July 13	366	101	18	70
Gessner, Erust, Aue, Saxony, Germany. Machine for pressing cloth. (Reissue).....	9,076	Feb. 17	905	259	17	384
Gessner, Erust, Aue, Saxony, Germany. Machine for pressing cloth. (Reissue).....	9,077	Feb. 17	907	259	17	384
Geyelin, Emile, Philadelphia, Pa. Suspension-bearing.....	229,039	June 22	1083	295	17	1417
Geyer, Andrew, East Cambridge, Mass. Making glass nipple-shields for nursing purposes.....	235,522	Dec. 14	574	163	18	1385
Gibble, Samuel S., Mount Joy, Pa. Insect-trap.....	234,976	Nov. 30	1447	389	18	1256
Gibbs, Charles H., Buffalo, N. Y. Heating-stove grate.....	227,242	May 4	182	53	17	1007
Gibbs, Henry J., et al. (See Fitt, Frederick, assignor.)						
Gibbs, William W., et al. (See Johnson, Asa, assignor.)						
Gibson, Albert C. (See Gibson, William M., assignor.)						
Gibson, Albert H. (See Smith, John S., assignor.)						
Gibson, Everett G., assignor to Lowell Machine Shop, Lowell, Mass. Cloth-stamping machine.....	223,223	Jan. 6	16	4	17	5
Gibson, John E., Clarke County, assignor of one-half interest to J. C. Calvert, Upperville, Va. Insecticide compound.....	225,697	Mar. 23	858	.....	17	635
Gibson, Stephen D., Marysville, Ohio. Harrow.....	223,336	Jan. 6	152	39	17	27
Gibson, William M., assignor to A. C. Gibson, Phenix, R. I. Pump.....	227,761	May 18	783	222	17	1126
Giddings, Wooster P. (See Johnson and Giddings.)						
Gieschen, John G. L. (See Hargrave, Moses C., assignor.)						
Gifford, Albert W., Worcester, Mass. Tweezers.....	223,444	Jan. 13	292	77	17	65
Gifford, Charles H. (See Gifford, Jesse H. and C. H.)						
Gifford, Herman C. (See Murley, John, assignor.)						
Gifford, Jesse H. and C. H., New York, N. Y. Combined portable health-exercising and gymnastic apparatus.....	232,022	Sept. 7	175	46, 47	18	553
Gifford, John Z., New York, N. Y. Packing-band.....	232,704	Sept. 28	993	273	18	711
Gifford, Leander W., et al. (See Salter, John H., assignor.)						
Gilbert, Abijah H. (See Curtis, Augustine B., assignor.)						
Gilbert, Charles A., Glens Falls, assignor to Libby & Spier, New York, N. Y. Shirt.....	234,558	Nov. 16	906	243	18	1154
Gilbert, Frank E., Jersey City, N. J. Jewelry.....	225,820	Mar. 23	1001	287	17	657

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Gilbert, Frank E., Jersey City, N. J. Charm and similar articles of jewelry .....	225,821	Mar. 23	1002	288	17	658
Gilbert, Isaac R., Louisville, Ky. Wheel-plow .....	230,767	Aug. 3	195	57	18	278
Gilbert, James. (See Trambly and Gilbert.)						
Gilbert, James W., Hoboken, Ala. Cultivator and cotton-chopper .....	234,023	Nov. 2	246	67	18	1026
Gilbert, John W., assignor, by mesne assignments, to J. W. and J. C. White and H. M. Lewis, trustees, Philadelphia, Pa. Hand-piece for dental engines. (Reissue) .....	9,443	Nov. 2	346	95	18	1045
Gilbert, Joseph, Philadelphia, Pa. Fire-proof building .....	224,173	Feb. 3	231	67	17	242
Gilbert, Reuben. (See Reed, Stephen, assignor.)						
Gilbert, Rufus H., New York, N. Y. Elevated railway .....	228,055	May 25	1135	{ 323 324 }	{ 17 }	1193
Gilchrist, John L., et al. (See Riter, John L., assignor.)						
Gilchrist, John M., et al. (See Williams, William C., assignor.)						
Gilchrist, Lydia D., et al. (See Gilchrist, William L., assignor.)						
Gilchrist, William L., assignor to C. Blake and L. D. Gilchrist, Franklin, N. H. Holdback ..	235,226	Dec. 7	202	55	18	1314
Gilday, William A., Philadelphia, Pa. Street-car motor .....	228,057	May 25	1138	324	17	1194
Giles, Henry, Milo, Iowa. Steel blank for repointing cultivator-shovels .....	233,149	Oct. 12	438	120	18	816
Giles, James H., New York, N. Y. Hotel-annunciator .....	233,087	Oct. 12	358	98	18	804
Gill, Jabez H., Philadelphia, Pa. Cartridge-primer .....	225,591	Mar. 16	719	212	17	602
Gill, Joseph J., Steubenville, Ohio. Glass-house furnace .....	224,896	Feb. 24	1090	312	17	428
Gill, Joseph J., Steubenville, Ohio. Glass-house furnace .....	226,608	Apr. 20	557	155	17	861
Gill, Joseph J., Steubenville, Ohio. Machine for finishing open-ended glassware .....	230,543	July 27	1251	353	18	227
Gill, Joshua S., Jr., and G. B. Alexander, Richmond, Ohio. Velocipede .....	227,685	May 18	690	196	17	1112
Gill, Philip H., Brooklyn, N. Y., assignor to H. G. Burgess, Mont Clair, N. J. Floating elevator .....	231,556	Aug. 24	1104	{ 309 310 }	{ 18 }	445
Gill, William, Toronto, Ontario, Canada. Brake for railway-cars .....	232,812	Oct. 5	18	5	18	741
Gill, William A. (See Bennett, Daniel, assignor.)						
Gillespie, James E., assignor to Fabric Fire Hose Company, Warwick, N. Y. Fire-hose ..	225,698	Mar. 23	858	250	17	635
Gillespie, Roland, Boston, assignor of one-half interest to S. W. Chamberlain, Somerville, Mass. Can-top .....	229,531	July 6	30	8	18	13
Gillespie, Walter, assignor to G. A. Drummond, Montreal, Quebec, Canada. Furnace-grate ..	225,590	Mar. 16	718	211	17	602
Gillett, Webster, Ypsilanti, Mich., assignor of one-half interest to R. Schermerhorn, Brook- lyn, N. Y. Speaking-telephone .....	232,705	Sept. 28	994	{ 273 274 }	{ 18 }	711
Gillette, King C., New York, N. Y. Tap bushing and valve combined .....	226,059	Mar. 30	1297	365	17	718
Gillette, Mott G., assignor to C. G. Singer, New York, N. Y. Tap-valve .....	225,471	Mar. 16	587	171	17	578
Gillig, Louis, assignor to himself and W. M. Wilson, Victor, Iowa. Hay-barrack .....	234,024	Nov. 2	247	67	18	1026
Gilliland Electric Manufacturing Company. (See Gilliland, Ezra T., assignor.)						
Gilliland Electric Manufacturing Company. (See Gilliland, Ezra T. and J. F., assignors.)						
Gilliland, Ezra T., assignor, by mesne assignments, to Gilliland Electric Manufacturing Company, Indianapolis, Ind. Magneto-electric generator for telephone call-signals .....	230,264	July 20	897	{ 254 255 }	{ 18 }	162
Gilliland, Ezra T., assignor to Gilliland Electric Manufacturing Company, Indianapolis, Ind. Electrical annunciator-drop .....	230,265	July 20	898	255	18	162
Gilliland, Ezra T., assignor to Gilliland Electric Manufacturing Company, Indianapolis, Ind. Electrical switch-board .....	231,421	Aug. 24	953	269	18	422
Gilliland, Ezra T. and J. F., assignors to Gilliland Electric Manufacturing Company, In- dianapolis, Ind. Magneto-electric generator .....	231,790	Aug. 31	1389	{ 391 392 }	{ 18 }	497
Gilliland, James F. (See Gilliland, Ezra T. and J. F.)						
Gilliland, James F., Indianapolis, Ind. Electrical switch-board .....	231,708	Aug. 31	1285	361	18	481
Gilliland, Samuel B., Salisbury, Mo. Horse hay-rake .....	235,227	Dec. 7	203	55	18	1314
Gillman, Alexander W., and S. Spencer, Castle Brewery, St. George's Road, Southwark, England. Bottling-machine .....	228,625	June 8	563	149	17	1323
Gillman, Richard, deceased, Lowell, Mass., (S. H. Seward, administrator.) Bolster for spin- ning-spindles .....	223,724	Jan. 20	623	167	17	128
Gilman, Benjamin H. (See Gilman, Samuel H., assignor.)						
Gilman, Edward L., Somerville, assignor to H. W. Bragg, Boston, Mass. Printing-machine ..	224,897	Feb. 24	1092	313	17	428
Gilman, Edward L., Somerville, Mass. Printing-press. (Reissue) .....	9,346	Aug. 17	915	257	18	409
Gilman, George H., Blissfield, Mich. Railway-tie .....	235,078	Dec. 7	20	5	18	1284
Gilman, George S. (See Stevens, Cyrus S., assignor.)						
Gilman, Myron A., Westfield, Mass. Cane and whip handle .....	232,179	Sept. 14	365	101	18	592
Gilman, Myron A., Westfield, Mass. Toy whip and cane handle .....	233,613	Oct. 26	1032	287	18	934
Gilman, Myron A., Westfield, Mass. Whip .....	234,769	Nov. 23	1179	317	18	1205
Gilman, Samuel H., New Orleans, La., assignor to B. H. Gilman, Dixon, Ill. Cotton-bale tie ..	225,517	Mar. 16	640	187	17	586
Gilman, Willard H., Beebe Plain, Quebec, Canada, and F. A. Wiswell, Derby, Vt., assignors to said Gilman and C. H. McClintock, Stanstead, Quebec, Canada. Curtain-fixture ..	224,287	Feb. 10	366	105*	17	283
Gilman, Willard H., Stanstead, Quebec, Canada. Cigar-clipper .....	235,678	Dec. 21	761	216	18	1423
Gilmore, Othniel, East Bridgewater, Mass. Sole-leveling machine .....	231,707	Aug. 31	1283	361	18	480
Gilmour, John D. (See Rewrick and Gilmour.)						
Gilson, Edward A., New York, N. Y. Paper-cabinet .....	224,010	Feb. 3	44	13, 14	17	211
Gilstrap, Jacob, La Plata, Mo. Wind-wheel .....	236,018	Dec. 28	1192	330	18	1502
Gingras, Timothy, assignor of one-half interest to R. Hoffeld, Buffalo, N. Y. Grinding, pol- ishing, and buffing wheel .....	230,768	Aug. 3	195	57	18	278
Giovannini, Philip, San Francisco, Cal. Double gate or valve .....	232,888	Oct. 5	114	30	18	756
Giraudat, Ambrose, Neury, N. J. Machine for cutting lace from paper .....	229,997	July 13	569	158	18	102
Girbardt, Leonhard, New York, N. Y. Reversible hat and other head-covering .....	225,120	Mar. 2	165	47	17	484
Githens, George M., Brooklyn, N. Y. Steam rock-drill .....	228,056	May 25	1137	324	17	1193
Githens, Joseph C., assignor to Rand Drill Company, New York, N. Y. Universal joint for tripod-legs and other purposes .....	230,935	Aug. 10	398	{ 115 116 }	{ 18 }	319
Githens, Joseph C., assignor to Rand Drill Company, New York, N. Y. Steam rock-drill ..	233,501	Oct. 19	877	243	18	898
Githens, Joseph C., assignor to Rand Drill Company, New York, N. Y. Device for the sup- port of steam rock-drills .....	235,079	Dec. 7	20	6	18	1284
Githens, Joseph C., assignor to Rand Drill Company, New York, N. Y. Steam rock-drill ..	235,080	Dec. 7	21	6, 7	18	1284
Gladding, James W., Vineland, N. J. Hoe .....	231,306	Aug. 17	824	231	18	394
Gladney, John R., Buena Vista, Miss. Manufacturing alcoholic spirits .....	224,419	Feb. 10	514	.....	17	307
Gladney, John R., Buena Vista, Miss. Condenser for alcoholic stills .....	224,421	Feb. 10	516	147	17	307
Gladwish, Frederick H., Brooklyn, N. Y. Decoy-bird .....	231,906	Sept. 7	35	7	18	530
Glascock, Frank R., Hillsborough, Ohio. Fertilizer-distributor .....	227,762	May 18	785	222	17	1126
Glasgow, William, Chicago, Ill. Machine for enameling or preparing moldings for gilding ..	226,845	Apr. 27	833	{ 231 232 }	{ 17 }	917
Glass, James B. (See Bailey and Glass.)						
Glassburn, Sylvester, Windsor, Mo. Draft-equalizer .....	226,305	Apr. 6	152	53	17	779
Glascock, Marion, Mount Vernon, Mo. Plow .....	226,609	Apr. 20	559	156	17	862
Glaze, Alexander M. (See Smith and Glaze.)						
Glaze, Lizzie A. (See Smith and Glaze, assignors.)						
Glazier, Charles E., Hornellsville, N. Y. Spray-nozzle .....	226,060	Mar. 30	1298	366	17	718
Gleason, D. H. L. (See Simonds, Frank P., assignor.)						



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Gleason, George R., assignor of one-half interest to G. C. Thompson, Chicago, Ill. Soldering-machine	227,164	May 4	90	24, 25	17	993
Gleason, Robert E., assignor of one-half interest to T. Miller, Muskegon, Mich. Log-carrying or bull chain	223,904	Jan. 27	854	227	17	175
Gleason, William, Rochester, N. Y. Machine for cutting the teeth of metal gears. (Reissue)	9,468	Nov. 16	1028	275	18	1174
Gleason, William, Rochester, N. Y. Machine for cutting the teeth of wooden gears. (Reissue)	9,469	Nov. 16	1031	276	18	1175
Gledhill, James, <i>et al.</i> (See Robinson, Albert S., assignor.)						
Glendenning, John, Norwich, England. School-desk	224,174	Feb. 3	231	67	17	242
Glenn, Lawrence, assignor of two-thirds to B. Cole and W. H. C. Jaques, Ottumwa, Iowa. Air-brake	234,179	Nov. 9	434	117	18	1066
Glidden, Charles W., Lynn, Mass. Heel-slicing machine	224,011	Feb. 3	45	14	17	211
Glidden, Charles W., Lynn, Mass. Machine for forming heel-piles	224,012	Feb. 3	47	15	17	211
Globe Company. (See Berney, Alfred, assignor.) (Reissue)						
Globe Nail Company. (See Miner, William W., assignor.)						
Globe Rolling Mill Company. (See Boyer and Kinsey, assignors.)						
Globe Woolen Company. (See Fyfe, Alexander M., assignor.)						
Glover, Almon B., Birmingham, Conn., assignor, by mesne assignments, to Eastern Paper Bag Company. Paper-bag machine. (Reissue)	9,428	Oct. 19	996	276	18	919
Glover, Edwin, Darkesville, W. Va. Burglar-alarm	230,266	July 20	899	255	18	162
Glover, George, Jr. (See Glover, James L., assignor.)						
Glover, Henry, Silvertown, Victoria Decks, England. Apparatus for burning sulphur to produce sulphuric acid	234,025	Nov. 2	249	68	18	1027
Glover, James L., assignor to himself and G. Glover, Jr., Windsor Locks, Conn. Circular-saw vise	224,676	Feb. 17	820	232	17	369
Glover, John B., Dubuque, Iowa. Overalls	224,175	Feb. 3	232	68	17	242
Glover, Robert, Leominster, assignor to J. A. Harwood, Littleton, and N. Harwood, Leominster, Mass. Mechanism for the manufacture of heel-stiffeners	233,848	Nov. 2	28	7	18	991
Glover, Samuel, Fairfield, Conn., assignor to M. Hartley, New York, N. Y. Cartridge capping and uncapping implement	231,162	Aug. 17	659	186	18	367
Glover, Thomas G., Bedford, Ind. Hand-car	226,304	Apr. 6	181	52	17	779
Glover, William H., assignor of one-half interest to T. Taylor; said Taylor assignor of one-half interest to W. L. Reynolds, St. Louis, Mo. Rolling-mill	224,420	Feb. 10	515	147	17	307
Glover, William H., assignor of two-thirds interest to H. M. Starkloff and J. D. Galvin, St. Louis, Mo. Monkey-wrench	231,557	Aug. 24	1105	310	18	445
Glover, William H., assignor of one-half to H. M. Starkloff, St. Louis, Mo. Rolling-mill	235,679	Dec. 21	762	216	18	1423
Gluyas, Walter R., Columbus, Ohio. Balanced steam-valve	230,769	Aug. 3	197	57	18	278
Glynn, Lawrence, Cambridgeport, Mass. Wrench	227,892	May 25	950	272	17	1164
Gmeiner, Hermann, Dresden, Saxony, Germany. Manufacture of colored paper	223,337	Jan. 6	153	39	17	28
Gobisch, Edward L., Jersey City, N. J. Toy bank	232,257	Sept. 14	459	127	18	608
Godard, Loyal. (See Fellows, Isbell, and Godard.)						
Goddard, Charles F., West Mitchell, Iowa. Plow	232,345	Sept. 21	571	157	18	633
Goddard Manufacturing Company. (See Whipple, Charles S., assignor.)						
Goddard, Robert L., <i>et al.</i> (See Hastings, Emory B., assignor.)						
Goddu, Louis, Winchester, assignor to McKay Metallic Fastening Association, (G. McKay, Cambridge, Mass., trustee.) Nailing-machine	226,062	Mar. 30	1300	366	17	718
Goddu, Louis, Winchester, assignor to G. McKay and J. W. Brooks, trustees, Cambridge, Mass. Nailing-machine. (Reissue)	9,299	July 13	695	194	18	122
Goddu, Louis, Boston, assignor, by mesne assignments, to G. McKay and J. W. Brooks, trustees, Cambridge, Mass. Pegging-machine. (Reissue)	9,315	July 20	1056	298 299	18	188
Godfrey, Lucious W. (See Skinner, Henry J., assignor.)						
Godfrey, William S. (See Adams, George E., assignor.)						
Goehring, Charles L., Allegheny, Pa. Thill-coupling	224,422	Feb. 10	517	147	17	308
Goessling, Gustavus O., Jersey City, N. J. Compartment-dish	231,034	Aug. 10	509	143	18	336
Goetting, George, New York, N. Y. Sponge-holder	234,124	Nov. 9	370	102	18	1055
Goetz, John A. G. (See Koetzer, Charles H., assignor.)						
Goetzinger, Albert. (See Goetzinger, Andrew and Albert.)						
Goetzinger, Andrew and Albert, Cincinnati, Ohio; said Andrew Goetzinger assignor to said Albert Goetzinger. Cork-cutting machine	229,818	July 13	368	102	18	70
Goetzinger, Andrew, Cincinnati, Ohio. Faucet	233,670	Oct. 26	1099	306	18	945
Goff, Darius, assignor to D. Goff & Sons, Pawtucket, R. I. Braid-holder	226,061	Mar. 30	1299	366	17	718
Goff, Henry, Corning, N. Y. Shutter	232,813	Oct. 5	20	6	18	742
Goff, Lyman B. (See Deane, Walter P., assignor.)						
Goff, Samuel B., East Creek, N. J. Windmill	223,725	Jan. 20	624	167	17	128
Goff, Samuel D., Marshalltown, Iowa. Carriage-top rest	231,792	Aug. 31	1391	392	18	497
Goff & Sons, D., <i>et al.</i> (See Deane, Walter P., assignor.)						
Goff & Sons, D. (See Goff, Darius, assignor.)						
Goff & Sons, D. (See Rice, Eliakim, assignor.) (Reissue.)						
Goforth, Andrew J. (See Goforth, William and A. J.)						
Goforth, William and A. J., Windsor, Mo. Wind-engine	232,258	Sept. 14	460	127	18	608
Gogel, John A., Toledo, Ohio. Cultivator	227,687	May 18	693	197	17	1112
Gogin, Thomas. (See Spiller, Charles E., assignor.)						
Göhring, Jacob, Frankenthal, Bavaria, Germany. Steam-generator and furnace	234,123	Nov. 9	369	101	18	1055
Gold, Edward E., New York, N. Y. Radiator	231,485	Aug. 24	1020	287	18	433
Gold, Joseph S., Washington Court-House, Ohio. Show-case	226,995	Apr. 27	1017	282	17	946
Gold Medal Sewing Machine Company. (See Elliott, William T., assignor.)						
Gold Medal Sewing Machine Company. (See French, Stephen, assignor.) (Reissue.)						
Gold Medal Sewing Machine Company. (See Thomas, Eddy T., assignor.)						
Gold, Samuel F., Englewood, N. J. Steam-heater	225,472	Mar. 16	588	171	17	578
Golden, Dominic, Antigo, Wis. Corn-planter	231,558	Aug. 24	1106	310	18	445
Goldie, William, Fentonville, Mich. Shingle-cutting machine. (Reissue)	9,251	June 15	993	270	17	1395
Goldie, William, Fentonville, Mich. Machine for cutting shingles. (Reissue)	9,257	June 15	1002	272	17	1397
Golding, Asa G., New York, N. Y. Double-walled pitcher	228,626	June 8	564	149	17	1323
Golding, Charles H., Bodie, Cal. Elevator	227,893	May 25	951	272	17	1164
Goldman, Mary, Toledo, Ohio. Wash for the hair	225,979	Mar. 30	1203		17	703
Goldmann, Philipp, New York, N. Y. Cap	230,770	Aug. 3	199	58	18	279
Goldsmith, Gustavus A. (See Shedlock, Alfred, assignor.)						
Goldsmith, Gustavus A., and A. K. Merrill, New York, N. Y., assignors to said Goldsmith. Standing collar	225,699	Mar. 23	859	250	17	635
Goldsmith, Gustavus A., and A. K. Merrill, New York, N. Y.; said Merrill assignor to said Goldsmith. Collar	228,059	May 25	1142	325	17	1194
Goldsmith, Gustavus A., New York, and W. J. Shedlock, Brooklyn, assignors to G. A. } Goldsmith, New York, N. Y. Machine for pasting and folding paper. }	231,307	Aug. 17	824	231 232	18	394
Goldsmith, J. Sidney, New York, N. Y. Combined shade and refractor	235,866	Dec. 28	1008	278	18	1472



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Goldsmith, J. Sidney, New York, N. Y. Lamp-cone.....	235,867	Dec. 23	1008	279	18	1473
Goldsmith, Lewis G., and N. Reed, Jersey City, N. J. Steam-radiator.....	230,267	July 20	900	255	18	162
Goldsmith, Solomon, <i>et al.</i> (See Krouse, Samuel R., assignor.)						
Gollyer, Henry, White Hall, Ill. Plow.....	233,038	Oct. 12	360	98, 99	18	804
Golucke, Edmund. (See Branch and Golucke.)						
Gondie, James, assignor of three-fourths to H. E. Vale, Chicago, Ill. Reefing-sails.....	235,868	Dec. 23	1009	279	18	1473
Gondola, Paul, Paris, France. Tannin extract.....	231,035	Aug. 10	510		18	336
Gonne, William H., Chatham, Ontario, Canada. Knob attachment. (Reissue).....	9,101	Mar. 2	250	70	17	500
Gonne, William H., Chatham, Canada, assignor of two-thirds to G. Watkins and O. M. Hidden, Bay City, Mich. Knob attachment.....	234,466	Nov. 16	797	214	18	1136
Good, Adam, San Francisco, Cal. Composition for preserving eggs.....	225,518	Mar. 16	642		17	537
Good, Edward G. (See Hobler and Good.)						
Good, Edward G., assignor to C. C. Holton, Chicago, Ill. Grinding-mill.....	231,222	Aug. 17	740	207	18	380
Good, James, St. Louis, Mo., assignor to Mississippi Valley Transportation Company. Grain-barge.....	233,748	Oct. 26	1184	329	18	959
Goodale, John, assignor to E. B. Welch, Cambridge, Mass. Pendulum weighing-scales.....	225,008	Mar. 2	29	9	17	461
Goode, Edward, Archer, Fla. Tombstone.....	231,663	Aug. 31	1235	347	18	473
Goodell, Albert D., assignor to Miller's Falls Company, Miller's Falls, Mass. Ratchet bit-brace.....	228,810	June 15	817	223	17	1370
Goodell, Albert D., assignor to Miller's Falls Company, Miller's Falls, Mass. Bit-brace.....	228,811	June 15	818	223	17	1370
Goodell, Dexter W., assignor to Florence Machine Company, Florence, Mass. Feeding mechanism for sewing-machines.....	230,544	July 27	1252	353	18	227
Goodell, Dexter W., assignor to Florence Machine Company, Florence, Mass. Oil-stove.....	235,228	Dec. 7	204	55	18	1314
Goodell, George W., Beardstown, Ill. Ice-elevator.....	231,709	Aug. 31	1286	362	18	481
Goodell, Henry C. (See Spiller, Oscar M., assignor.) (Reissue.)						
Goodenow, Albert L., and W. J. Owens, Utica, N. Y. Hot-air furnace.....	231,559	Aug. 24	1107	{ 310 311 }	18	445
Goodenow, Albert L., and W. J. Owens, Utica, N. Y. Grate.....	231,710	Aug. 31	1288	362	18	481
Goodes, Ebenezer A., assignor to Wells & Hope Company, Philadelphia, Pa. Combined hanger and support for signs.....	223,224	Jan. 6	18	4	17	5
Goodfellow, John H., Troy, N. Y. Fire-plate for stoves.....	235,081	Dec. 7	23	7	18	1285
Goodhue, Seth, Wilmet, N. H. Railway-switch.....	234,977	Nov. 30	1448	{ 389 390 }	18	1256
Goodhue, William F., Chicago, Ill. Railway and tramway track gage.....	223,223	Jan. 6	18	5	17	6
Gooding, George E., and E. H. Taylor, Lynn, Mass. Edge-trimming tool.....	228,456	June 8	350	96	17	1293
Goodman, Benedict, Auburn, Ind. Hoisting device.....	229,999	July 13	572	159	18	102
Goodman, John, Louisville, Ky. Telephone.....	234,978	Nov. 30	1450	390	18	1256
Goodman, Samuel, <i>et al.</i> (See Weir, Robert H., assignor.)						
Goodnow, Henry W., Clinton, Mass. Box.....	225,978	Mar. 30	1202	341	17	703
Goodrich, Benjamin F. (See Bensinger and Goodrich.)						
Goodrich, Harry C., Chicago, Ill. Safety device for elevators.....	226,846	Apr. 27	836	232	17	918
Goodrich, Harry C., Worcester, Mass. Elevator.....	233,232	Oct. 12	535	149	18	834
Goodrich, Joseph, Henry, Ill. Tool for grasping and holding articles.....	227,686	May 18	691	197	17	1112
Goodridge, James F., and A. Pope, Boston, Mass. Car-starter.....	234,026	Nov. 2	250	68	18	1027
Goodwillie, David, Chicago, Ill. Egg-carrier.....	226,168	Apr. 6	23	6	17	750
Goodwillie, David, Chicago, Ill. Egg-carrier.....	227,518	May 11	497	142	17	1071
Goodwin, Augustine, Mattoon, Ill. Animal-trap.....	230,628	Aug. 3	38	10	18	253
Goodwin, Julius C., Kalamazoo, Mich. Oar-lock.....	235,355	Dec. 14	368	101	18	1350
Goodwin, Mark, assignor of one-half interest to W. D. Tracy, New York, N. Y. Floating dumping-platform.....	228,058	May 25	1141	325	17	1194
Goodwin, Wilbur, assignor to himself and D. Huston, Boston, Mass. Carpenter's gage.....	230,127	July 20	729	904	18	137
Goodwin, William W., Creston, Iowa. Gate.....	231,907	Sept. 7	36	8	18	536
Goodyear, Albert, Hamden, Conn. Grain-binder.....	229,396	June 29	1491	{ 410 411 }	17	1482
Goodyear, Benjamin, Carlisle, Pa. Crock bail or handle.....	231,791	Aug. 31	1390	392	18	497
Goodyear, Robert B., Philadelphia, assignor of one-half interest to Wolfenden, Shore & Co., Cardington, Pa. Stop-motion for looms.....	232,485	Sept. 21	743	206	18	661
Goodyear's Metallic Rubber Shoe Company. (See Ensign, Charles A., assignor.)						
Gordon, Alexander, Detroit, Mich. Apparatus for curing tobacco.....	234,467	Nov. 16	798	214	18	1136
Gordon, Edward F., assignor to H. Hobbs, Concord, N. H. Steam-radiator.....	227,517	May 11	495	142	17	1070
Gordon, Fred W. (See See, James W., assignor.)						
Gordon, Frederick W., Pittsburg, Pa. Hydraulic motor.....	229,882	July 13	440	121	18	82
Gordon, Frederick W., Ironton, Ohio. Steam-engine valve.....	233,233	Oct. 12	536	149	18	834
Gordon, Henry. (See Cleave and Gordon.)						
Gordon, James E. H., Holmwood Cottage, Dorking, England. Electric light.....	234,770	Nov. 23	1180	318	18	1205
Gordon, James F., Rochester, N. Y. Grain-binder.....	229,693	July 6	206	57	18	38
Gordon, James F., Rochester, N. Y. Mechanical movement.....	232,486	Sept. 21	744	{ 206 207 }	18	662
Gordon, John H. (See Storle, Ole O., assignor.)						
Gordon, John H., Brooks, Me. Umbrella-support.....	229,395	June 29	1490	410	17	1482
Gordon, John J., Flint, Mich. Hinge.....	226,306	Apr. 6	182	53	17	779
Gordon, Leonard J., and W. J. Tait, Jersey City, N. J. Machine for wrapping tobacco, &c.....	224,332	Feb. 10	415	{ 118 119 }	17	291
Gordon, Robert. (See Russell and Gordon.)						
Gordon, Robert, McKeesport, Pa. Ointment bottle and stopper.....	230,126	July 20	728	204	18	137
Gordon, William H., assignor to E. T. Barnum, Detroit, Mich. Cheese-safe.....	228,627	June 8	565	150	17	1324
Gore, Charles L. (See Townsend, John D., assignor.)						
Gore, Henry A., Goshen, Ind., assignor of one-half interest to C. W. Walker. Wringer.....	226,399	Apr. 13	287	81	17	808
Gore, Henry A., Goshen, Ind. Carpet-sweeper.....	226,847	Apr. 27	837	232	17	918
Gore, Maurice, Paris, France. Thrashing and mowing machine.....	234,270	Nov. 9	545	149	18	1086
Gorges, Edouard V. J. L., Paris, France. Conversion of marine plants into pulp, &c.....	231,484	Aug. 24	1020		18	433
Gorham, Helen M., executrix, <i>et al.</i> (See Flenniken, Theodore M., assignor.)						
Gorham, Helen M., executrix. (See Gorham, Marquis L.)						
Gorham, Jackson, assignor of one-half interest to W. A. Legwen, Crawfordville, Ga. Corner-iron for wagon-bodies.....	225,052	Mar. 2	94	25	17	472
Gorham, John M. (See Epeneter and Grabl, assignors.) (Reissue.)						
Gorham, John M., Cleveland, Ohio. Wash-board.....	223,338	Jan. 6	153	39	17	28
Gorham, Marquis L., deceased, (H. M. Gorham, executrix.) Rockford, Ill. Grain-binder.....	233,089	Oct. 12	362	{ 99 100 101 }	18	804
Gorman, John, Philadelphia, Pa. Steering apparatus for vessels.....	234,180	Nov. 9	435	118	18	1067
Gornall, Richard, assignor to himself and C. E. Dickey, Baltimore, Md. Gaging and side-seaming cans.....	234,271	Nov. 9	547	{ 149 150 }	18	1086
Gorrill, Richard W., San Francisco, Cal. Truss-bridge.....	224,677	Feb. 17	820	{ 232 233 }	17	562

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Gorsleno, Granville L., Athens, Ohio. Compound for nasal catarrh.....	224,084	Feb. 3	133	.....	17	225
Gorton, George, <i>et al.</i> (See Reid, William A., assignor.)						
Goshon, Joseph G., Spring Run, Pa. Car-coupling.....	224,898	Feb. 24	1093	313	17	423
Goslee, Ozias W., Glastonbury, Conn. Tobacco-hoe.....	233,849	Nov. 2	29	7	18	991
Goss, Daniel. (See Noble, Oscar W., assignor.)						
Goss, Frederick L., assignor of one-half interest to C. J. Stromberg, Chicago, Ill. Feeding attachment for printing-presses.....	229,998	July 13	571	158	18	102
Goss, Leonard, <i>et al.</i> (See Mortz, Joseph O., assignor.)						
Gossett, Morgan, Russellville, Ohio. Extension settee-table.....	229,692	July 6	205	57	18	38
Gottier, William W., Dunkirk, Ohio. Wagon-tongue coupling.....	226,307	Apr. 6	183	53	17	779
Gottlieb, Abraham, Pittsburg, Pa. Bridge and bridge-iron.....	230,185	July 20	795	225	18	147
Gouge, Henry A., New Rochelle, N. Y. Hot-air car heater and ventilator.....	234,666	Nov. 23	1064	286 287	18	1187
Gough, Edward, Allentown, Pa. Lamp.....	229,117	June 22	1169	320	17	1429
Gould, John D. (See Chandler, Clarence A., assignor.)						
Gould, Lyman, Norwich, Conn. Hot-air furnace.....	235,945	Dec. 28	1106	306	18	1488
Gould, Reuben B. H., assignor to himself and W. W. Jones, East Cambridge, Mass. Piston-rod packing.....	228,341	June 1	208	58	17	1260
Gould, Simeon L., Gardiner, Me. Pulp-screen for paper-machines.....	234,559	Nov. 16	907	244	18	1154
Gould, Thomas E., Williamsburg, N. Y. Bill and letter file or holder.....	234,667	Nov. 23	1068	287	18	1187
Gove, Andrew J. (See Garland, Howard P., assignor.)						
Gow, James S., Quincy, Ill. Tool for forming lugs in stove-covers.....	230,475	July 27	1180	332	18	215
Gowen, William, Wausau, Wis. Set-work for saw-mills.....	233,409	Oct. 19	779	214 215	18	881
Gower, Frederic A., Providence, R. I. Telephone.....	236,021	Dec. 28	1195	331	18	1503
Gowland, John, assignor of two-thirds interest to M. Gowland and J. Nutall, Philipsburg, Pa. Machine for cutting and mining coal.....	227,354	May 11	317	92	17	1041
Gowland, Matthew, <i>et al.</i> (See Gowland, John, assignor.)						
Gracey, James B., Richmond, Va. Agricultural implement.....	230,414	July 27	1100	310	18	201
Grady, Louis G., Halifax, N. C. Tool for jewelers' use.....	234,560	Nov. 16	908	244	18	1154
Graef, Charles, Brooklyn, N. Y. Combined nippers and cork-extractor.....	235,427	Dec. 14	458	130	18	1365
Graetz, Henry F., St. Joseph, Md. Check-row corn-planter and fertilizer.....	224,176	Feb. 3	233	68	17	242
Graf, Louis, Van Buren, Ark. Producing colored photographs on linen.....	229,694	July 6	209	.....	18	39
Graff, Felix B., assignor of one-half interest to R. J. Saltsman, Erie, Pa. End-board for wagon-boxes.....	223,445	Jan. 13	292	77	17	65
Grage, Heinrich W., Fort Wayne, Ind. Horseshoe.....	233,234	Oct. 12	537	150	18	834
Grah, Emil, Toledo, Ohio. Sign.....	230,268	July 20	900	256	18	163
Graham, Charles, Kingston, Pa. Fastening boiler-tubes.....	226,741	Apr. 20	705	196	17	885
Graham, Charles, Kingston, Pa. Fastening boiler-tubes.....	232,259	Sept. 14	461	127	18	609
Graham, Daniel M., Chicago, Ill. Hydrocarbon-burner.....	234,468	Nov. 16	798	214	18	1136
Graham, Edmund G. (See Duke, William, assignor.)						
Graham, Joseph S., <i>et al.</i> (See Emerson, Orlando S., assignor.)						
Graham, Joseph S., <i>et al.</i> (See Griswold, John, assignor.)						
Graham, Mary M., Lynn, Mass. Dress-protector.....	236,019	Dec. 28	1193	330	18	1503
Graham, Peter D., Black Hawk, Colo. Combined cutting and clinching tool.....	227,243	May 4	183	53	17	1007
Grahl, Bernard. (See Epeneter and Grahl. (Reissue.)						
Grain Binder Association. (See Hubbard, Moses G., assignor.)						
Grain Binder Association. (See Travis, Charles L., assignor.)						
Granbery, Jennie L. (See Granbery, Theodore, assignor.)						
Granbery, Theodore, assignor to J. L. Granbery, New York, N. Y. Bead chain.....	232,814	Oct. 5	20	6	18	742
Grandy, Daniel B., Boston, Mass., assignor to N. F. Potter, trustee, Providence, R. I. Duplex telegraph.....	230,001	July 13	574	159	18	103
Grandy, Edward F., Boston, Mass., assignor to Copeland Boot Treering Machine Company, Hartford, Conn. Boot-treering machine.....	234,401	Nov. 16	723	194 195	18	1124
Granger, Almon M., New Orleans, La., assignor of one-half interest to G. H. Robinson, New York, N. Y. Fire-extinguisher.....	224,678	Feb. 17	822	233	17	369
Granger, Almon M., New Orleans, La., assignor of one-half interest to G. H. Robinson, New York, N. Y. Hose-nozzle.....	229,695	July 6	210	57	18	39
Granger, Almon M., New Orleans, La., assignor, by mesne assignment, of one-half interest to Fire Extinguisher Manufacturing Company, New York, N. Y. Fire-extinguisher.....	233,235	Oct. 12	538	150	18	834
Granger, Arthur O., and J. H. Collins, Jr., Philadelphia, Pa. Process of and apparatus for manufacturing illuminating-gas.....	234,400	Nov. 16	719	194	18	1123
Granier, Jules H., and A. F. Fossemale, Paris, France. Manufacture of gloves.....	229,819	July 13	370	102	18	71
Grannis, Hial S. (See Stow and Grannis.)						
Grannis, Sidney S., Red Wing, Minn. Carpet-tacker.....	223,905	Jan. 27	855	227	17	176
Grannis, Sidney S., Red Wing, Minn. Carpet-tacker.....	229,397	June 29	1492	411	17	1482
Grant, Charles, Jr. (See Nichols, Andrew, assignor.)						
Grant, Daniel L., Philadelphia, Pa. Weather-strip.....	228,526	June 8	438	120	17	1305
Grant, James. (See Douglass, William H., assignor.)						
Grant, John, New Orleans, La. Portable sectional jetty.....	225,592	Mar. 16	720	212	17	602
Grant, John J., Hartford, Conn. Machine for making screw-taps.....	230,629	Aug. 3	39	11, 12	18	253
Grant, Joseph C. (See Gue and Grant.)						
Grant, J. Pierson, New York, N. Y. Compound for pavements, drain-pipes, &c.....	233,502	Oct. 19	879	.....	18	898
Grant, Royal C., Middleport, Ohio. Ore-grinding mill.....	234,027	Nov. 2	251	68	18	1027
Grape, Lewis, Canajoharie, N. Y. Rein-holder.....	228,060	May 25	1142	325	17	1194
Grassick, William, Lucknow, Ontario, Canada. Snap-hook.....	228,628	June 8	566	150	17	1324
Grater, Frank A. (See Allen and Grater.)						
Graves, David L., Louisville, Ky. Whisky-mash rake.....	228,190	June 1	36	11	17	1233
Graves, George W. (See Fogelberg and Graves.)						
Graves, George W. (See Ransom and Graves.)						
Graves, Henry C., <i>et al.</i> (See Herchelrode, Henry C., assignor.)						
Graves, John, East Orange, A. W. Partrick, Newark, N. J., and W. Partrick, Sing Sing, N. Y. Kitchen-table.....	232,401	Sept. 21	640	176	18	645
Graves, Samuel, North Weymouth, Mass. Lounge-bed.....	230,545	July 27	1253	353	18	227
Gray, Albert Y. (See Gray, Leonidas and A. Y.)						
Gray, Benson L. (See Hartmeyer and Gray.)						
Gray, Elisha, Chicago, Ill. Electric telephone.....	224,013	Feb. 3	48	15	17	211
Gray, Elisha, Chicago, Ill. Speaking-telephone.....	233,343	Oct. 19	694	190	18	863
Gray, Elisha, Chicago, Ill. Speaking-telephone.....	233,344	Oct. 19	696	190 191	18	868
Gray, Elisha, Chicago, Ill. Telephonic telegraph.....	233,345	Oct. 19	697	191	18	863
Gray, Henry F., assignor of one-half interest to A. D. Field, Columbus, Ohio. Window-cornice.....	228,189	June 1	35	11	17	1233
Gray, Henry P. and W., Jr., South Manchester, Conn. Apparatus for dyeing and washing yarn, cloth, &c.....	225,363	Mar. 9	457	133	17	546

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Gray, Hiram A., Jr., New Haven, Conn. Hair-crimper.....	235,680	Dec. 21	762	217	18	1423
Gray, John A. (See Johnson, Louis K., assignor.)						
Gray, John D., Cypress, Tex. Car-coupling.....	226,742	Apr. 20	706	196	17	885
Gray, Leonidas and A. Y., Middletown Springs, Vt. Wrench.....	227,765	May 18	787	223	17	1127
Gray, Niel, and E. G. Cushing, Oswego, N. Y.; said Cushing assignor to said Gray. Machine for sizing, stretching, and drying cloth.....	234,771	Nov. 23	1182	{ 318 319 }	{ 18 18 }	{ 1206 1206 }
Gray, Ralph, Fayette City, Pa. Machinery for handling blow-pipes in glass-working.....	223,726	Jan. 20	625	168	17	123
Gray, Richard, assignor of one-half interest to J. Dunn, Bloomington, Ill. Device for converting motion.....	227,244	May 4	184	54	17	1007
Gray, Robert W., assignor of one-half interest to G. Frost, G. H. Felps, and G. A. Frost, Dedham, Mass. Shoulder and back brace.....	224,899	Feb. 24	1094	313	17	429
Gray, Sylvester, Long Island City, N. Y. Water-seal cup for waste-pipes for refrigerators, &c.....	234,979	Nov. 30	1452	390	18	1256
Gray, Sylvester H., New Bern, N. C. Wooden dish.....	233,615	Oct. 26	1034	287	18	934
Gray, Thomas B., assignor of one-half interest to J. D. Knox, Topeka, Kans. Wind-wheel.....	232,815	Oct. 5	22	6	18	742
Gray, Thomas J., Chicago, Ill. Draw-bridge gate.....	233,926	Nov. 2	111	30, 31	18	1005
Gray, Thomas R., Ottumwa, Iowa. Potato-digger.....	229,602	July 6	109	29	18	22
Gray, William, Jr. (See Gray, Henry P. and W., Jr.)						
Gray, William, Toronto, Ontario, Canada. Furnace.....	233,614	Oct. 26	1033	287	18	934
Gray, William, Beardstown, Ill. Apparatus for cutting and removing bands.....	234,561	Nov. 16	909	244	18	1154
Gray, William D., Milwaukee, Wis. Roll for reducing grain, middlings, &c.....	228,525	June 8	437	119	17	1305
Gray, William D., Milwaukee, Wis. Feed device for roller-mills for grinding grain.....	235,761	Dec. 21	861	240	18	1439
Gray, William N. (See See and Gray.)						
Graydon, Thomas W., Cincinnati, Ohio. Audiphone.....	224,177	Feb. 3	235	68	17	242
Graydon, Thomas W., Cincinnati, Ohio. Audiphone.....	225,364	Mar. 9	458	133	17	546
Graydon, Thomas W., Cincinnati, Ohio. Dentaphone.....	225,365	Mar. 9	459	134	17	546
Graydon, Thomas W., Cincinnati, Ohio, assignor to J. E. Hetherington, New York, N. Y. Galvanic belt.....	226,658	Apr. 20	617	172	17	871
Grayson, Henry C., Centreville, R. I. Automatic roving piercer and breaker for spinning } machinery.....	227,427	May 11	396	{ 115 116 }	{ 17 17 }	{ 1053 1053 }
Greaves, James, assignor of one-half to J. and J. Dobson, Philadelphia, Pa. Condensing-cylinder for carding-engines. (Reissue).....	9,477	Nov. 23	1279	343	18	1222
Grebner, Michael, Hoboken, N. J. Bird-cage.....	223,340	Jan. 6	155	40	17	28
Greece, Charles W., Detroit, Mich. Foot-protector for horses.....	226,848	Apr. 27	838	233	17	918
Greely, Benjamin J., Boston, Mass. Suspender-end. (Reissue).....	9,155	Apr. 13	518	145	17	844
Green, Charles. (See Wilson, William, Jr., assignor.)						
Green, Charles. (See Wilson, William, Jr., assignor.) (Reissue.)						
Green, Charles, assignor of one-half to W. Wilson, Jr., Greenville, Del. Sheet-metal can...	234,269	Nov. 9	544	148	18	1085
Green, Charles F., Worcester, Mass. Griddle.....	225,927	Mar. 30	1132	322	17	692
Green, Charles H. (See Kwaysser and Hnsak, assignors.)						
Green, David A., and J. H. Roberts, Rushville, Ind. Adjustable truck.....	226,997	Apr. 27	1019	283	17	947
Green, David A., and J. H. Roberts, Rushville, Ind. Hinge.....	225,980	Mar. 30	1203	341	17	703
Green, Edwin J., Valparaiso, Ind. Combined wardrobe, bedstead, and table.....	224,679	Feb. 17	823	233	17	370
Green, Irvin T., Richmond, Ky. Filter.....	224,680	Feb. 17	824	233	17	370
Green, Jasper N. (See Cook and Green.)						
Green, John H., Freeport, Ohio. Window-sash stop and fastener.....	230,476	July 27	1180	332	18	215
Green, Luther W., Williamsport, Pa. Rotary cut-off saw.....	228,886	June 15	900	246	17	1382
Green, Thomas E. (See Nye, Charles H., assignor.)						
Green, Thomas M., Milledgeville, Ga. Rice-hulling mill.....	223,339	Jan. 6	154	40	17	28
Green, Walter R., Salt Lake, Utah Ter. Cheese-cutter.....	226,513	Apr. 13	434	122	17	830
Green, William W., assignor of one-half interest to G. P. Ross, Chicago, Ill. Belt-fastening.....	230,936	Aug. 10	399	116	18	319
Green, Willis D., Mount Vernon, Ill. Attachment for grain-drills.....	223,501	Jan. 13	362	96	17	77
Greenbaum, Solomon H., New York, N. Y. Show-case with revolving stand.....	228,812	June 15	819	224	17	1371
Greene, Charles J., et al. (See Hayes, James H., assignor.)						
Greene, James G., assignor to H. C. Jones and E. J. Sugru, Rochester, N. Y. Lamp.....	225,366	Mar. 9	460	134	17	546
Greene & Smith, J. W. (See Dolloff, Wellington P., assignor.)						
Greene, Will E., Marietta, Ohio. Fountain-pen.....	227,894	May 25	951	273	17	1165
Greener, William W., Birmingham, England. Breech-loading fire-arm.....	229,604	July 6	111	30	18	25
Greenhow, James H., Eckmansville, Ohio. Gate.....	230,477	July 27	1181	333	18	215
Greenland, Miles C., Well's Tannery, Pa. Washing-machine.....	225,593	Mar. 16	721	{ 212 213 }	{ 17 17 }	{ 602 602 }
Greenland, Robert C., Connellsville, Pa. Head-light case.....	227,763	May 18	786	222	17	1126
Greenleaf, Abner. (See Logan and Greenleaf.)						
Greenleaf, Clements A., Indianapolis, Ind. Turn-table.....	226,996	Apr. 27	1018	282	17	946
Greenleaf, Clements A., Indianapolis, Ind. Turn-table.....	234,668	Nov. 23	1068	{ 287 288 }	{ 18 18 }	{ 1187 1187 }
Greenleaf, Daniel J., Port Jervis, N. Y. Child's carriage.....	233,503	Oct. 19	880	243	18	898
Greenleaf, Joseph H., New Haven, Conn., assignor to New York Screw Company, New York, N. Y. Wood-screw machine.....	225,277	Mar. 9	343	{ 100 101 102 103 104 105 106 }	{ 17 17 17 17 17 17 17 }	{ 528 528 528 528 528 528 528 }
Greenleaf, Joseph H., New Haven, Conn. Ferrule.....	229,603	July 6	110	30	18	25
Greenleaf, Latham W., Terre Haute, Ind. Elevator for barrels, &c.....	231,793	Aug. 31	1391	393	18	498
Greensfelder, Moses, Baltimore, Md. Cigar-bunching machine.....	226,849	Apr. 27	839	233	17	918
Greenwald, Daniel S., Warren, Ohio. Millstone-dressing machine.....	224,085	Feb. 3	133	38	17	225
Greenwald, Daniel S., Warren, Ohio. Millstone-dresser.....	226,610	Apr. 20	560	{ 156 157 }	{ 17 17 }	{ 862 862 }
Greenwell, Robert E., Osage Mission, Kans. Railway-joint.....	227,519	May 11	497	143	17	1071
Greenwood, John H., Columbus, Ohio. Planer-chuck.....	233,846	Nov. 2	25	6, 7	18	990
Greenwood, Marstin D., Hoosick Falls, N. Y. Chain-link.....	228,063	May 25	1147	326	17	1195
Greenwood, William P., Cambridgeport, Mass. Rosette.....	228,857	June 15	901	246	17	1382
Greer, Edwin D., Greers, Va. Fruit and lard press.....	229,398	June 29	1493	411	17	1482
Greer, Edwin D., Greers, Va. Shingle-sawing machine.....	229,399	June 29	1494	{ 411 412 }	{ 17 17 }	{ 1482 1482 }
Greer, Edwin D., Greers, Va. Straw-cutting machine.....	235,523	Dec. 14	575	164	18	1385
Greer, Howard, Chicago, Ill., assignor of one-half to G. H. Christy, trustee, Sewickley, Pa. Railway-spike.....	236,020	Dec. 28	1194	330	18	1503
Greer, Martin, Bolivar, Mo. Stout-dressing machine.....	233,090	Oct. 12	368	101	18	805
Greer, Edward, Manchester, Mass. Game apparatus.....	230,000	July 13	573	159	18	103
Gregerson, George A., Rochester, and C. O. Weymouth, Olmsted County, Minn. Blinder for bridles.....	227,764	May 18	787	223	17	1127

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Gregerson, George J., New York, assignor of one-half interest to E. L. Hayward, Port Richmond, N. Y. Treating pine-leaves and other vegetable fibers.....	229,248	June 29	1309	.....	17	1458
Gregg, Joshua. (See Stiles, Herbert D., assignor.)						
Gregg, Romeo, N. T. Shaw, and W. Felton, Columbus, Ohio. Cooling-board for corpses....	234,980	Nov. 30	1452	390	18	1256
Gregg, Washington P., Boston, Mass. Roller-skate.....	233,845	Nov. 2	24	6	18	990
Gregg, William L., Philadelphia, Pa. Brick-machine.....	229,247	June 29	1306	{ 360 361 325 326 }	{ 17 17 }	{ 1458 1194 }
Gregory, Clark B., Beverly, N. J. Furnace.....	228,061	May 25	1143	274	18	711
Gregory, George G., Brooklyn, N. Y. Fish-hook wrapper.....	232,706	Sept. 28	995	326	17	1195
Gregory, James T., Athens, Tenn. Pencil attachment for pantographs.....	228,062	May 25	1146	354	18	227
Gregory, Stephen, Jonesville, Mich. Attaching tombstones to bases, &c.....	230,546	July 27	1254	53, 54	17	779
Greig, Alfred, Leeds, England. Permanent way for railways.....	226,308	Apr. 6	184			
Greives, John. (See Seeland, Frederick F., assignor.)						
Greth, William, Buffalo, N. Y. Refrigerator.....	230,771	Aug. 3	199	58	18	279
Grey, Samuel H., et al. (See Rushforth, William H., assignor.)						
Griener, Roman, Evansville, Ind. Rocking-chair.....	232,023	Sept. 7	179	47	18	553
Grier, Robert M., O'Fallon, Mo. Gate.....	231,560	Aug. 24	1108	311	18	446
Grieser, Leonhard, Minonk, Ill. Corn-planter.....	229,696	July 6	211	58	18	39
Griesinger, Phillip, et al. (See Page, Charles W., assignor.)						
Griessmayer, Philipp, Pforzheim, assignor to Volpp, Schwarz & Co., Freiburg, Baden, Ger- } many. Method of and machinery for cutting, grinding, and polishing glassware..... }	235,524	Dec. 14	577	{ 164 165 }	{ 18 18 }	{ 1385 1293 }
Griest, John M., Chicago, Ill. Ruffling or gathering attachment for sewing-machines.....	228,457	June 8	351	96	17	1293
Griffin, Ambrose, Freeport, Me. Steering apparatus for vessels.....	232,487	Sept. 21	746	207	18	662
Griffin, Caleb H., assignor of one-half interest to L. F. Wise, Boston, Mass. Dress-maker's chart.....	228,527	June 8	439	120	17	1305
Griffin, Caleb H., assignor, by mesne assignments, to L. F. Wise, Boston, Mass. Dress-maker's square.....	234,273	Nov. 9	551	150	18	1086
Griffin, La Roy F. (See Fitts and Griffin.)						
Griffin, Martin G., Council Bluffs, Iowa. Device for emptying tea out of the original tea-chest.....	235,082	Dec. 7	25	8	18	1285
Griffin, Michael, assignor to J. W. Hart, Weymouth, Mass. Sole-channeling machine.....	234,272	Nov. 9	550	150	18	1086
Griffin, Michael, assignor to J. W. Hart, Weymouth, Mass. Sole-channeling machine.....	235,525	Dec. 14	580	165	18	1386
Griffing, Horace B. (See D'Arcus, Henry, assignor.)						
Griffith, Frederick W., et al. (See Shedlock, Alfred, assignor.)						
Griffith, Frederick W., New York, and G. P. Byrne, Brooklyn; said Griffith assignor to J. Forsythe, New York, N. Y. Paper-feeding machine.....	234,469	Nov. 16	800	215	18	1137
Griffith, Goldsborough S., Jr., Baltimore, Md. Sample-exhibitor.....	232,639	Sept. 28	920	253	18	699
Griffith, Thomas B., Carver, Mass. Life-raft.....	235,946	Dec. 28	1107	306	18	1488
Griffith, William. (See Hamilton and Griffith.)						
Griffiths, Amos E., Philadelphia, Pa. Apparatus for condensing fumes.....	235,148	Dec. 7	107	31	18	1299
Griffiths, Griffith W., Tecumseh, Mich. Pipe-wrench.....	227,768	May 18	790	223	17	1127
Griffiths, Harry S., Brooklyn, N. Y. Oscillating printing-press.....	227,520	May 11	498	143	17	1071
Griffiths, Thomas. (See Knight, Henry, assignor.) (Reissue.)						
Griggs, A. Irving, New York, N. Y. Stove-board.....	230,002	July 13	575	160	18	103
Griggs, A. Irving, New York, N. Y. Stove-board. (Reissue).....	9,486	Dec. 7	313	88	18	1333
Grille, Charles T. (See Parker, Abijah S., assignor.)						
Grille, Thomas M., assignor to M. Renz, Bridgeport, Conn. Pocket-knife.....	233,091	Oct. 12	369	102	18	805
Grimm, Daniel, Nuremberg, Bavaria, Germany. Apparatus for utilizing exhaust-steam.....	226,850	Apr. 27	842	234	17	919
Grinberg, Adolf J., et al. (See Rosenfeld, Israel L., assignor.)						
Grinde, Hans S. (See Knudson, Hans, assignor.)						
Grinnell, Frederick, Providence, R. I. Automatic fire-extinguisher.....	231,711	Aug. 31	1289	{ 362 363 }	{ 18 18 }	{ 481 482 }
Grinnell, Frederick, Providence, R. I. Automatic fire-extinguisher.....	231,712	Aug. 31	1291	363	18	482
Grinnell, Frederick, Providence, R. I. Automatic fire-extinguisher.....	231,713	Aug. 31	1292	363	18	482
Grinnell, Frederick, Providence, R. I. Fire-extinguisher.....	231,714	Aug. 31	1293	364	18	482
Grinnell, Frederick, Providence, R. I. Automatic fire-extinguisher.....	231,715	Aug. 31	1294	364	18	482
Grinnell, Frederick, Providence, R. I. Automatic fire-extinguisher.....	231,716	Aug. 31	1296	364	18	483
Grinnell, Ira L., Ann Arbor, Mich. Sewing-machine attachment.....	230,478	July 27	1182	333	18	215
Griscom, Samuel E. (See Vulpius, Edler H. C. A. T., assignor.)						
Griscom, William M., et al. (See Rippien, Adolph, assignor.)						
Griscom, William W., Philadelphia, Pa. Electro-magnetic motor.....	227,622	May 18	619	178	17	1102
Griscom, William W., Philadelphia, Pa. Electro-magnetic motor.....	227,623	May 18	620	178	17	1102
Griscom, William W., Philadelphia, Pa. Regulating electro-magnetic motors.....	228,888	June 15	902	247	17	1382
Grisé, Odilon, Springfield, Mass. Thill-coupling.....	228,993	June 22	1039	283	17	1410
Grisham, John O., State Line, Miss. Corn cutting and grinding mill.....	230,547	July 27	1255	354	18	228
Griswold, Edmond, and J. D. Moran, New York, N. Y. Fruit-jar.....	225,752	Mar. 23	925	268	17	645
Griswold, Frank W., Providence, R. I. Annunciator for fire-alarm telegraphs.....	232,707	Sept. 28	996	274	18	711
Griswold, Henry J., London, England, assignor to himself and H. A. Lathrop, Sharon, Mass. Stocking.....	229,401	June 29	1499	413	17	1483
Griswold, Homer A., et al. (See Brickett, John, assignor.)						
Griswold, John, et al. (See Emerson, Orlando S., assignor.)						
Griswold, John, assignor to himself and H. J. Burton; said Griswold and Burton assignors of one-half interest to O. S. Emerson and J. S. Graham, Elkhart, Ind. Safety-valve.....	232,708	Sept. 28	997	275	18	711
Griswold, John A., Portland, Mich. Handling barrels.....	224,527	Feb. 17	643	185	17	339
Griswold, Joseph G. (See Marable, Thomas E., assignor.)						
Griswold, Matthew, Jr. (See Selden and Griswold.)						
Griswold, Pardon H., Tonawanda, N. Y. Shingle-cutting machine.....	224,333	Feb. 10	421	120	17	292
Griswold, William L. (See Stow, Nelson, assignor.)						
Grizzel, John, Augusta, Ark. Baling-press.....	232,260	Sept. 14	462	128	18	609
Groat, William R. (See Mason and Groat.)						
Groesbeck, David, New York, N. Y. Ventilating apparatus.....	232,488	Sept. 21	747	207	18	662
Groesbeck, David, New York, N. Y. Spark-arrester.....	235,762	Dec. 21	862	241	18	1440
Groff, Adam B., Bareville, Pa. Railway-ticket.....	225,009	Mar. 2	30	9	17	462
Groom, Patrick W., St. Louis, Mo. Handle-socket for shovels, spades, and scoops.....	230,003	July 13	576	160	18	103
Groom, Wallace P., Brooklyn, N. Y. Baling-press.....	226,998	Apr. 27	1019	283	17	947
Groom, Wallace P., Brooklyn, N. Y. Treating seed-cotton.....	227,767	May 18	789	.....	17	1127
Groom, Wallace P., Brooklyn, N. Y. Process of and apparatus for separating trash from seed-cotton.....	233,847	Nov. 2	26	7	18	991
Groshon, John A., New York, N. Y. Elevator.....	224,900	Feb. 24	1095	313	17	429
Groshon, John A., New York, N. Y. Elevator.....	225,473	Mar. 16	589	171	17	578
Gross, John F., Canton, Ohio. Car-coupling.....	229,400	June 29	1497	412	17	1483
Gross, John G., Saline, Mich. Plow.....	225,053	Mar. 2	94	26	17	472



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			Spec.	Dr'g.	Vol.	Page.
Gross, Robert E. (See Miller and Gross.)						
Gross, Samuel E., Chicago, Ill. Map	232,261	Sept. 14	463	128	18	609
Grosscup, Fred P., et al. (See McAnulty, John A., assignor.)						
Grossius, John, Cincinnati, Ohio. School-house stove	227,766	May 18	788	223	17	1127
Grossmann, William, Chesterfield County, Va. Artificial wood	225,822	Mar. 23	1003		17	658
Grout, Charles P., New York, N. Y., assignor to J. W. and J. C. White and H. M. Lewis, trustees. Machine for transmitting motion. (Reissue)	9,234	July 6	334	92	18	57
Grout, Charles P., and W. E. Burk, New York, N. Y.; said Burk assignor to said Grout. Bar counter and mat	234,028	Nov. 2	252	68	18	1027
Grout, George L., Worcester, Mass. Reed-organ	229,605	July 6	113	30	18	25
Grove, Joseph, Toronto, Ontario, Canada. Fire-proof safe	223,502	Jan. 13	363	97	17	77
Grover, R. W. (See Hall, Frank H., assignor.)						
Groves, Arthur, La Due, Mo. Churn	226,911	Apr. 27	915	255	17	930
Groves, William F., Oil City, Pa. Burial-vault or tomb	226,743	Apr. 20	706	196	17	885
Grows, John W., Brooklyn, N. Y. Cover for sink-outlets	234,402	Nov. 16	724	195	18	1124
Grows, John W., Brooklyn, N. Y. Float-trap for wash-basins, &c.	235,629	Dec. 21	710	201	18	1414
Grubbs, William H., Bucklin, Mo. Picture-frame molding	224,590	Feb. 17	724	206	17	353
Grube, Jefferson, Auburn, Ind. Grain-separator	225,367	Mar. 9	461	134	17	546
Grube, Jefferson, Auburn, Ind. Grain-separator	235,229	Dec. 7	205	56	18	1315
Gruber, John P., Jersey City, N. J. Faucet	232,709	Sept. 28	998	275	18	712
Gruman, George B., Branchville, Conn. Snow-scraping machine	234,470	Nov. 16	802	215	18	1137
Grunder, Christian, and J. H. Moyer, Reading, Pa. Harness-pad	234,125	Nov. 9	371	102	18	1055
Grundy, James, New Bedford, Mass. Glass pitcher	227,426	May 11	395	115	17	1053
Grush, Andrew J., and J. Lockhart, Macon County, Ill.; said Grush assignor to said Lockhart. Check-rower for corn-planters	233,927	Nov. 2	114	31	18	1006
Guard, Chauncey H., Dayton, Ohio. Hub	235,630	Dec. 21	710	201	18	1414
Gubbins, John F., Chicago, Ill. Offal-drier	230,128	July 20	730	204	18	137
Guc, Albert F., and G. F. Field, Boston, Mass., assignors to American Standard Brake Company, Concord, N. H. Car-brake	233,850	Nov. 2	30	8	18	991
Gue, David J., and J. C. Grant, assignors to themselves and J. Swivel, New York, N. Y. Preparing extract of coffee	228,889	June 15	903		17	1382
Gue, David J., and J. C. Grant, assignors to themselves and J. Swivel, New York, N. Y. Extract of coffee	229,697	July 6	212		18	39
Guerber, Frederick S. (See Jackson and Guerber.)						
Guerber, Frederick S. (See Tilden and Guerber.)						
Guernsey, Jane M. (See Guernsey, William B., assignor.)						
Guernsey, William B., assignor to J. M. Guernsey, Norwich, N. Y. Horse-hame and pad therefor	231,664	Aug. 31	1236	{ 347 348 }	18	473
Guest, John H., Brooklyn, N. Y. Electric lamp	225,594	Mar. 16	722	213	17	602
Guest, John H., Brooklyn, N. Y. Electric lamp	233,236	Oct. 12	541	150	18	835
Guest, John H., Brooklyn, N. Y. Electric lamp	233,346	Oct. 19	699	191	18	868
Guild, Frederick, Canton, assignor of one-half interest to G. F. Hall, Boston, Mass. Window and door protector	227,355	May 11	318	92, 93	17	1041
Guild & Garrison. (See Guild, William H., Jr., assignor.)						
Guild, Gilbert G., New York, N. Y. Machine for polishing small articles	224,086	Feb. 3	136	38, 39	17	225
Guild, George M., Boston, Mass. Action-frame for upright pianos	227,624	May 18	621	178	17	1102
Guild, William H., Jr., assignor to Guild & Garrison, Brooklyn, N. Y. Vacuum-pump	224,179	Feb. 3	236	69	17	242
Guilder, Absalom R., Minneapolis, Minn. Middlings-purifier	225,218	Mar. 9	278	80	17	517
Guinean, Thomas, Sacramento, Cal. Filter	235,764	Dec. 21	864	241	18	1440
Guinn, Jesse L., Okolona, Miss. Wagon-lock	224,681	Feb. 17	825	234	17	370
Gullick, Edwin. (See Lefferts, Henry D. B., assignor.)						
Gum, Joseph S. (See Van Anker and Gum.)						
Gum, Joseph S., Fowler, Ind. Plow	231,308	Aug. 17	826	232	18	395
Gump, William E., Brooklyn, N. Y. Stereotype-casting box	233,749	Oct. 26	1185	329	18	959
Gunckel, Patrick H., administrator. (See Regan, Bernard.) (Reissue.)						
Gunn, Daniel A., Weston, Ohio. Velocipede	233,671	Oct. 26	1100	306	18	945
Gunnels, John W., and D. O. Shives, Hancock, Md. Mower	228,890	June 15	904	247	17	1383
Gunning, James F. J., assignor of one-half to M. Adler, New Haven, Conn. Guide for sewing-machines	234,181	Nov. 9	436	118	18	1067
Gunning, Michael G., Amesbury, Mass. Suspenders	234,029	Nov. 2	253	69	18	1027
Gunter, Levi, Gunther's Mills, S. C. Log-tripper	235,763	Dec. 21	863	241	18	1440
Gunther, George A., Bath, and W. Kowalski, Brooklyn, N. Y. Locomotive spark-extinguisher	234,274	Nov. 9	552	150	18	1087
Gunther, George A., Bath, and W. Kowalski, Brooklyn, N. Y. Spark-arrester	235,230	Dec. 7	206	56	18	1315
Guptail, Dan, Elgin, Ill., assignor, by mesne assignments, to C. La Dow. Cultivator. (Reissue)	9,087	Feb. 17	928	264	17	387
Gord, William J., Sarnia, Ontario, Canada. Interest-calculator	229,118	June 22	1170	320	17	1429
Gurley, William F. E., assignor of one-half interest to E. G. Smith, Danville, Ill. Jewel-case	230,548	July 27	1256	354	18	228
Gustavson, Charles J., Salt Lake City, Utah. Hopple	234,562	Nov. 16	911	245	18	1155
Gutekunst, F. (See Jacobi, Emil, assignor.)						
Guth, Henry, New York, N. Y. Ventilating-valve for fermenting casks	225,368	Mar. 9	461	134	17	546
Gutzkow, Frederick, San Francisco, Cal. Manufacture of carbonate of magnesia	235,231	Dec. 7	207		18	1315
Guy, Constant, Paris, France, assignor of one-fiftieth interest to H. Lee, New York, N. Y. Plate-printing machine. (Reissue)	9,317	July 20	1064	{ 299 300 }	18	190
Guy, William S., Nottoway Court-House, Va. Tobacco-hoisting apparatus	228,342	June 1	209	59	17	1261
Guy, William S., Nottoway Court-House, Va. Tobacco-hoisting apparatus	231,309	Aug. 17	826	232	18	395
Guyer, Adelbert, Denver, Ind. Car-coupling	225,981	Mar. 30	1204	341	17	703
Guyer, Clinton, Muncy, Pa. Breech-loading fire-arm	226,744	Apr. 20	707	196	17	885
Haag, Adam W., Fleetwood, Pa. Windmill	233,237	Oct. 12	542	150	18	835
Haas, Harry L., assignor of one-fourth interest to A. Levett, New York, N. Y. Solution for nickel-plating	230,872	Aug. 10	332		18	309
Haas, Philip M., Warren, Ohio. Machine for turning balusters	226,912	Apr. 27	916	255	17	931
Haas, Philip M., Warren, Ohio. Machine for dressing millstones	228,630	June 8	568	151	17	1324
Haas, William, Lyndon, Kans. Washing-machine	225,278	Mar. 9	361	106	17	530
Habel, Peter, Chicago, Ill. Axle-lubricator	223,285	Jan. 6	94	23	17	18
Hacheney, William, San Francisco, Cal. Turbine water-wheel	228,629	June 8	567	150	17	1324
Hackett, Richard, Oshkosh, Wis. Mortising-chisel	234,669	Nov. 23	1070	288	18	1188
Hackman, Amantes, and G. W. Tinsley, Blakesburg, Iowa. Nut-lock	225,121	Mar. 2	165	47	17	484
Hackman, Thomas W. (See Morgan and Hackman.)						
Hadden, William, New York, N. Y. Duplex telegraph	228,458	June 8	353	96	17	1293
Hadden, William, Brooklyn, assignor to T. T. Eckert, J. W. Clendenin, D. H. Bates, New York, N. Y., and R. Garrett, Baltimore, Md. Electric signaling-instrument	231,794	Aug. 31	1393	393	18	498
Hadfield, George W., and F. E. Clark, Brooklyn, N. Y., assignors to W. H. Lum. Lamp and holder. (Reissue)	9,423	Oct. 19	989	274	18	918



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Hadley, Benjamin H., Providence, R. I. Belt-shipper.....	234,563	Nov. 16	912	245	18	1155
Hadley, Charles H., New London, Conn. Sheave for pulley-blocks.....	223,795	Jan. 20	702	189	17	141
Hadley, Edson P., Shelburne Falls, and T. Joyce, Buckland; said Joyce assignor to M. D. Hawes, Leominster, Mass. Shank support and protector for boots and shoes.....	234,030	Nov. 2	254	69	18	1027
Hadley, George W., assignor of one-half interest to T. C. Page, Chicopee Falls, Mass. Breech-loading fire-arm.....	232,816	Oct. 5	24	7	18	742
Hafely, Alfred C., assignor to Koch, Sons & Co., New York, N. Y. Package for pencils.....	230,772	Aug. 3	201	58	18	279
Hafely, Alfred C., New York, assignor to W. C. Horn, Brooklyn, N. Y. Lead and crayon holder.....	232,607	Sept. 28	883	244	18	692
Haff, Edward P., New York, N. Y. Crochet-needle.....	229,402	June 29	1500	413	17	1483
Haff, Edward P., New York, N. Y. Holder for tape, &c.....	229,403	June 29	1501	413	17	1483
Haffcke, Charles, New York, N. Y. Baking apparatus.....	228,753	June 15	739	{ 203 204 }	{ 17 17 }	{ 1360 1360 }
Hafner, Henry, <i>et al.</i> (See Quick, William B., assignor.)						
Hafner, Joseph, Springville, Cal. Plow.....	228,813	June 15	820	224	17	1371
Hagen, Augustus A. (See Crossley and Hagen.)						
Hagerty, Clark, Killmoreville, Ind. Drag-sawing machine.....	226,064	Mar. 30	1301	367	17	719
Hagerty, James S., <i>et al.</i> (See Solter, John, assignor.)						
Hagerty, James S., Baltimore, Md. Foot-bath.....	226,063	Mar. 30	1300	366	17	718
Hagerty, Michael H. (See Weise, Frederic A., assignor.)						
Hagerty, Michael H., Brooklyn, N. Y. Glass stopper.....	223,503	Jan. 13	364	97	17	77
Hagmann, Joseph, and F. Sauer, Washington, D. C. Refrigerating show-case.....	226,169	Apr. 6	24	7	17	750
Hagstoz, Thomas B., <i>et al.</i> (See Mueller, Theodore, assignor.)						
Hague, Will, <i>et al.</i> (See Atherton, Robert, assignor.) (Reissue.)						
Haigh, Joseph P., Hamilton, Ohio. Wrench.....	235,083	Dec. 7	26	8	18	1285
Haight, John B., Cincinnati, Ohio. Wire cinder-shovel.....	229,119	June 22	1171	321	17	1430
Haight, Lansing, Sonora, Cal. Crushing, grinding, and amalgamating machine.....	224,087	Feb. 3	138	39	17	226
Haight, Moses E. (See Doubler, John W. H., assignor.)						
Haight, Stephen S., New York, N. Y. Stock-car.....	232,262	Sept. 14	464	{ 128 129 }	{ 18 18 }	{ 609 609 }
Haile, James T. (See Crowder and Haile.)						
Haile, James T., Whitesborough, Tex. Hand-press for fruit, &c.....	232,029	Sept. 7	187	50	18	555
Haiman, Elias, Atlanta, Ga. Bale-tie.....	226,851	Apr. 27	843	234	17	919
Haines, Edward W., Elizabeth, N. J. Game apparatus for lawn-bowling.....	232,606	Sept. 28	881	244	18	692
Haines, Joel R., Mount Laurel, N. J. Self-locking hook.....	224,423	Feb. 10	518	148	17	308
Haines, John W., Cambridge, Mass. Key for piano-fortes.....	225,700	Mar. 23	860	251	17	635
Haines, John W., Cambridge, Mass. Decorating glass lamps.....	225,701	Mar. 23	860	251	17	635
Haish, Jacob, De Kalb, Ill. Barbed fence-wire. (Reissue.)	9,036	Jan. 6	271	71	17	49
Hake, Cecil N., Allyn House, Fulham, England. Manufacture of potassium sulphate from kainit.....	229,249	June 29	1310	.....	17	1458
Hakes, Henry B. (See Matthews, Elbridge G., assignor.)						
Halbach, Herman F., assignor of one-half interest to H. H. Faust, Baltimore, Md. Boot and shoe heel trimming machine.....	232,180	Sept. 14	365	101	18	592
Halbert, Louis J., Brooklyn, N. Y. Slate-cleaner.....	233,238	Oct. 12	543	151	18	835
Halcroft, Henry, Media, assignor of one-half interest to L. Palmer, Concordville, Pa. Shedding mechanism for looms.....	228,191	June 1	36	11	17	1233
Hale, Daniel, Georgetown, Mass. Upright steam-boiler.....	227,105	May 4	16	5, 6	17	981
Hale, Edward, Wigan, England, assignor to J. J. McComb, New York, N. Y. Metallic hoop.....	226,065	Mar. 30	1302	367	17	719
Hale, Edward, Wigan, England, assignor to J. J. McComb, New York, N. Y. Barrel-hoop.....	229,699	July 6	214	58	18	39
Hale, Elias J. (See Fulton, William H., assignor.)						
Hale, George C., Kansas City, Mo. Harness.....	229,120	June 22	1171	321	17	1430
Hale, Henry S., Philadelphia, Pa. Convertible nursery-chair.....	224,181	Feb. 3	238	70	17	243
Hale, Henry S., Philadelphia, Pa. Wardrobe-bedstead.....	226,310	Apr. 6	187	55	17	780
Hale, James A., and W. R. Ramsey, Baltimore, Md. Refrigerator.....	225,595	Mar. 16	723	213	17	602
Hale, Robert, Minneapolis, Minn. Implement for gathering fruit.....	233,410	Oct. 19	782	215	18	882
Hale, William C. (See Patterson and Hale.)						
Hale, William E., Chicago, Ill., assignor to Hydraulic Elevator Company. Hydraulic elevator.....	224,901	Feb. 24	1097	314	17	429
Hale, William P., Brockport, N. Y. Paddle-wheel.....	226,999	Apr. 27	1023	283	17	947
Haley, Jonathan, assignor to W. Haley, Pittsburg, Pa. Glass-press.....	227,103	May 4	15	4	17	981
Haley, Samuel W., Brooklyn, N. Y. Phosphated nutritive powder.....	230,415	July 27	1102	.....	18	202
Haley, William. (See Haley, Jonathan, assignor.)						
Haley, William, Pittsburg, Pa. Tool for making glass pitchers, &c.....	233,672	Oct. 26	1101	306	18	945
Haley, William, Pittsburg, Pa. Mold for pressed glassware.....	234,564	Nov. 16	913	{ 245 246 }	{ 18 18 }	{ 1155 1155 }
Hall, Albert E., Boston, Mass. Dredging-scoop.....	231,665	Aug. 31	1237	348	18	473
Hall, Alfred, Perth Amboy, N. J. Terra-cotta kiln.....	230,479	July 27	1183	333	18	215
Hall, Alfred H., Boston, Mass. Safety appliance for elevators.....	230,006	July 13	580	160	18	104
Hall, Cassius L., Ypsilanti, Mich. Coffee-roaster.....	231,486	Aug. 24	1022	287	18	433
Hall, Edgar C., Ione, and C. D. Smith, Amador City, Cal. Vise.....	232,959	Oct. 5	197	52	18	770
Hall, Edwin R. (See Davis, William S., assignor.)						
Hall, Francis A., and N. B. Milton, Monroe, La., assignors of one-third interest to D. Steinau. Combined scraper, chopper, and dirter.....	233,241	Oct. 12	546	151	18	836
Hall, Frank H., Sugar Grove, assignor of one-half to R. W. Grover, Chicago, Ill. Apparatus for skimming milk.....	234,670	Nov. 23	1071	288	18	1188
Hall, George B. (See Boles and Hall.)						
Hall, George F. (See Guild, Frederick, assignor.)						
Hall, Giles, East St. Louis, Ill. Machine for separating precious metals from their ores.....	234,565	Nov. 16	916	{ 246 247 }	{ 18 18 }	{ 1156 1156 }
Hall, Gordon W., assignor to himself and A. O. Whittemore, Havana, N. Y. Propeller for canal-boats.....	227,245	May 4	185	54	17	1008
Hall, Gordon W., assignor to himself and A. O. Whittemore, Havana, N. Y. Steam-boiler.....	232,024	Sept. 7	180	48	18	553
Hall, Gorham O., St. Louis, Mo. Tenoning-machine.....	231,310	Aug. 17	827	233	18	395
Hall, Isaac, Boston, Mass. Shoe.....	224,528	Feb. 17	643	185	17	339
Hall, James, Highland Mills, N. Y. Machine for making cordage.....	226,309	Apr. 6	185	54	17	780
Hall, James, Glen Cove, N. Y. Fastening for cans.....	228,343	June 1	210	59	17	1261
Hall, James F., Havana, N. Y. Vise.....	230,005	July 13	578	160	18	103
Hall, James M. F., and J. H. S. Coleman, Davenport, Iowa. Wrench.....	230,270	July 20	902	256	18	163
Hall, James P. (See Berkholz, John, assignor.)						
Hall, James W. (See Winchell, James F., assignor.)						
Hall, Jennison C. (See Bailey, William H., assignor.)						
Hall, John, Hamilton, Ontario, Canada. Air-brake for railway-trains.....	231,311	Aug. 17	828	233	18	395
Hall, John, Watertown, Mass. Dress-form.....	233,239	Oct. 12	544	151	18	835
Hall, John, Watertown, Mass. Adjustable dress-form.....	233,240	Oct. 12	545	151	18	836

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Hall, Jonathan, and C. M. Lane, Keene, assignors of one-third interest to G. F. Lane, East Swanzey, N. H. Steam-boiler.	232,121	Sept. 14	293	82	18	580
Hall, Joseph L. (See Flint, Benjamin F., assignor.)						
Hall, Joseph L. (See McDuffie, Franklin, assignor.) (Reissue.)						
Hall, Leonard H., Erie, Pa. Hoisting-machine. (Reissue.)	9,095	Feb. 24	1179	338	17	443
Hall, Leonard H., Erie, Pa. Portable hoisting-engine.	227,104	May 4	16	5	17	981
Hall Manufacturing Company. (See Lewis, Mortimer G., assignor.)						
Hall, Moses P., Hinsdale, N. Y. Drag-saw.	223,504	Jan. 13	365	97	17	77
Hall, Moses Y., Vinal Haven, Me. Bag-tie.	224,180	Feb. 3	237	69	17	243
Hall Railway Signal Company. (See Hall, Thomas S., assignor.)						
Hall, Ross, Millersburg, Ohio. Heating stove and grate.	232,263	Sept. 14	466	129	18	610
Hall, Samuel, Chicago, Ill. Baker's oven.	232,264	Sept. 14	467	129	18	610
Hall, Thomas S., Brattleborough, Vt. Electro-magnetic railway-signal.	232,025	Sept. 7	180	48, 49	18	554
Hall, Thomas S., assignor to Hall Railway Signal Company, Meriden, Conn. Electro-magnetic switch apparatus for railway-tracks.	234,031	Nov. 2	255	69	18	1028
Hall, Thurston G., assignor of one-half interest to G. H. Van Vleck, Buffalo, N. Y. Apparatus for extracting metal from ores.	232,889	Oct. 5	115	30	18	757
Hall, Thurston G., assignor of one-half interest to G. H. Van Vleck, Buffalo, N. Y. Apparatus for extracting metals from ores.	233,505	Oct. 19	882	244	18	898
Hall, William F., Boston, Mass. Latch.	231,561	Aug. 24	1109	311	18	446
Hall, William H., De Witt, Iowa. Clearing device for millstones.	230,269	July 20	901	256	18	163
Halladay, Daniel, Batavia, Ill. Stave-crozing machine.	232,489	Sept. 21	750	208	18	663
Halladay, Daniel, Batavia, Ill. Machine for sawing tank-staves.	232,490	Sept. 21	751	208	18	663
Hallahan, Daniel F., Philadelphia, Pa. Edge trimmer and burnisher.	229,698	July 6	213	58	18	39
Hallenbeck, Matthew L., Georgetown, Tex. Turbine wheel.	231,164	Aug. 17	664	187	18	368
Haller, Martin, Ann Arbor, Mich. Ear-piercer.	231,036	Aug. 10	511	144	18	336
Halley, Samuel D., assignor of one-half interest to W. Daman, St. Louis, Mo. Combined square, protractor, &c.	223,727	Jan. 20	626	168	17	129
Hallner, John, Saunders, Nebr. Rotary pump.	228,344	June 1	210	59	17	1261
Hallock, Robert F. L., Valliceto, Cal. Blasting.	232,640	Sept. 28	921	253	18	699
Hallock, Valentine H., Queens, N. Y. Cooling and drying while reducing grain into flour.	224,823	Feb. 24	1008	286	17	415
Hallock, Valentine H., Queens, assignor of one-third interest to J. Conklin, Brooklyn, N. Y. Belt-tightener.	226,311	Apr. 6	187	55	17	780
Halsey, Abraham, San Francisco, Cal. Seal-lock.	235,356	Dec. 14	369	101	18	1350
Halsey, A. J. (See Hunt, Henry C., assignor.)						
Halsey, James T., Philadelphia, Pa. Switch-stand and interlocking apparatus.	227,688	May 18	694	{ 197 198 }	{ 17 17 }	1112
Halsey, William H., assignor to Celluloid Fancy Goods Company, Newark, N. J. Apparatus for and process of forming thimble-blanks of celluloid and other materials.	224,682	Feb. 17	825	234	17	370
Halstead, Charles B., Rantoul, Ill. Castrating-instrument.	234,914	Nov. 30	1370	368	18	1243
Halton, Samuel, Lawsonville, Tex. Car-coupling.	233,092	Oct. 12	370	102	18	805
Halvorson, Halvor, Nashua, N. H. Desiccating vegetables.	230,004	July 13	576		18	103
Halvorson, Halvor, Nashua, N. H. Desiccating eggs.	233,750	Oct. 26	1186		18	960
Ham, Charles T., et al. (See Orphy, John W., assignor.)						
Ham, Charles T., assignor of one-half interest to F. D. Clarke, Rochester, N. Y. Lantern.	230,873	Aug. 10	333	97	18	309
Hamaker, David L. (See Wolf, Augustus and A. N., assignors.) (Reissue.)						
Haman, Isaac N. (See Adams, James A., assignor.)						
Haman, William H., Philadelphia, Pa. Combined wardrobe and trunk.	227,428	May 11	399	116	17	1053
Haman, William H., Philadelphia, Pa. Spring rocking-chair.	235,232	Dec. 7	208	56	18	1315
Hamann, August, Hoboken, N. J., assignor to J. A. Deknatel, Brooklyn, N. Y. Glass button and mold for manufacturing the same.	236,022	Dec. 28	1198	331	18	1503
Hamblin, Floyd, Boonville, N. Y. Washing-machine.	232,728	Jan. 20	627	168	17	129
Hamblin, James B., assignor to Withington & Cooley Manufacturing Company, Jackson, Mich. Manufacture of solid-shank cast-steel rakes.	227,521	May 11	500	{ 143 144 }	{ 17 17 }	1071
Hames, Arthur. (See Aston and Hames.)						
Hamilton, David B., Fletcher, Ohio. Gate.	234,471	Nov. 16	803	215	18	1137
Hamilton, Edward, Philadelphia, Pa., assignor to Duteher Temple Company, Hopedale, Mass. Loom-temple.	228,346	June 1	212	60	17	1261
Hamilton, Emery M., assignor to C. T. Reynolds & Co., New York, N. Y. Perspective diagram-sheet.	229,404	June 29	1501	414	17	1483
Hamilton, James, Great Falls, assignor of one-half interest to I. Eaton, Nashua, N. H. Spindle for loom-shuttles. (Reissue.)	9,093	Feb. 24	1177	337	17	442
Hamilton, Jessie M. (See Hamilton, William B., assignor.)						
Hamilton, Ralph E., Royal Oak, Mich. Press.	225,122	Mar. 2	166	47	17	484
Hamilton, Robert, Franklin, Ind. Harrow and seed-sower.	230,271	July 20	902	257	18	163
Hamilton, Robert H., and W. Griffith, assignors to themselves, C. L. and W. A. Magee, Pittsburg, Pa. Manufacture of iron.	226,400	Apr. 13	288		17	808
Hamilton, Robert H., and W. Griffith, assignors to themselves, C. L. and W. A. Magee, Pittsburg, Pa. Manufacture of iron.	231,563	Aug. 24	1111		18	446
Hamilton, Samuel R. (See Wilcoxson, Coulmon W., assignor.)						
Hamilton Steele Wheel Company. (See Hamilton, William G., assignor.) (Reissue.)						
Hamilton, Thomas H., assignor to T. Tansley, Jr., and A. McIlvain, Baltimore, Md. Machine for soldering square cans.	233,673	Oct. 26	1102	306	18	945
Hamilton, Thomas H., Baltimore, Md. Can-soldering machine.	235,428	Dec. 14	459	130	18	1366
Hamilton, Thomas W., Springfield, Mass. Automatic gas-extinguisher.	224,776	Feb. 24	953	271	17	406
Hamilton, William B., assignor to J. M. Hamilton, Hyde Park, Ill. Lock-box cover.	225,123	Mar. 2	167	47	17	484
Hamilton, William B., Briensburg, Ky. Wagon-brake.	234,276	Nov. 9	554	151	18	1087
Hamilton, William G., Ramapo, N. Y., assignor to Hamilton Steele Wheel Company, Philadelphia, Pa. Manufacturing cast chilled railway-wheels. (Reissue.)	9,487	Dec. 7	314		18	1333
Hamilton, William R., Pittsburg, Pa. Ball-trap.	232,347	Sept. 21	575	158	18	634
Hamlet, William, Merced, Cal. Machine for forming and laying continuous drain-pipes.	231,908	Sept. 7	36	8	18	530
Hamlin, Charles A., Greenbush, assignor to Ransom Stove Works, Albany, N. Y. Damper for stoves.	227,895	May 25	952	273	17	1165
Hamlin, Charles A., Greenbush, assignor to Ransom Stove Works, Albany, N. Y. Stove.	231,163	Aug. 17	661	{ 186 187 }	{ 18 18 }	368
Hamman, Daniel, Beason, Ill. Railway cattle-gate.	228,459	June 8	354	97	17	1293
Hammelmann, Charles, Buffalo, N. Y. Velocipede.	225,010	Mar. 2	32	9, 10	17	462
Hammelmann, Charles, Buffalo, N. Y. Mechanical movement.	225,702	Mar. 23	861	{ 251 252 }	{ 17 17 }	635
Hammer, C. Otto, assignor to D. Hammer, Allegheny, Pa. Torch.	232,265	Sept. 14	468	130	18	610
Hammer, Dora. (See Hammer, C. Otto, assignor.)						
Hammer, Gustav F., Cincinnati, Ohio. Automatic cylinder-cock. (Reissue.)	9,058	Jan. 27	937	250	17	189
Hammer, Thorvald F., Branford, Conn. Machine for boring and tapping pipe-bends.	231,312	Aug. 17	829	233	18	395
Hammerstein, Oscar, New York, N. Y. Wash-stand.	223,907	Jan. 27	858	228	17	176

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Hammesfahr, Hermann, assignor to T. B. and J. S. Atterbury, Pittsburg, Pa. Glass cloth or fabric.....	232,122	Sept. 14	293	83	18	580
Hammitt, James W., Willow Island, W. Va. Apparatus for making wells.....	224,182	Feb. 3	239	70	17	243
Hammitt, James W., Willow Island, W. Va. Fence.....	223,891	June 15	905	247	17	1383
Hammill, Richard, Chicago, Ill. Lantern.....	223,908	Jan. 27	859	228	17	176
Hammon, Wendell P. (See Lawrence, Hammon, and Strawbridge.)						
Hammond, Andrew. (See Keene, Samuel D., assignor.)						
Hammond, Charles D., et al. (See Putnam, George W., assignor.)						
Hammond, Charles E., New York, N. Y. Cloth-measuring.....	230,937	Aug. 10	460	116	18	319
Hammond, George C. (See Barton, William R., assignor.)						
Hammond, Henry, assignor to H. Cornwall, Hartford, Conn. Grinding-machine.....	229,250	June 29	1311	361	17	1458
Hammond, Isaac B., Deadwood, Dak. Ter. Ore-feeder for stamp-mills.....	223,906	Jan. 27	857	227	17	176
Hammoud, James B., Hartford, Conn. Type-writing machine.....	224,088	Feb. 3	139	39	17	226
Hammond, James B., Hartford, Conn. Type-writing machine.....	224,183	Feb. 3	241	70, 71	17	243
Hammond, James B., New York, N. Y. Type-writing machine.....	232,402	Sept. 21	640	177	18	645
Hammond, William H., et al. (See Custer, George, assignor.)						
Hampe, Albert, Staunton, Ill. Running-gear for wagons.....	231,562	Aug. 24	1110	{ 311 312 }	18	446
Hamper, Henry, Plymouth, Mich., assignor to Huntley, Holcomb & Heine, Silver Creek, N. Y. Cleaning the meshes of bolting-screens.....	229,121	June 22	1172	321	17	1430
Hampton, Andrew B. (See Stevens and Hampton.)						
Hampton, John B., Pomeroy, Ohio. Horse-collar.....	233,929	Nov. 2	116	32	18	1006
Hampton, Thomas O. (See Thomas, David and S., assignors.)						
Hance, Archibald. (See Hornum, William H., assignor.)						
Hancock, Arthur, and H. S. Heath, 406 Euston Road, England. Liquid-meter.....	234,275	Nov. 9	553	151	18	1087
Hancock, Clinton C. (See Laverty, William A., assignor.)						
Hancock, Clinton C. (See Laverty and Hancock.)						
Hancock, Clinton C., Philadelphia, Pa. Neckscarf.....	228,460	June 8	355	97	17	1293
Hancock, Clinton C., Philadelphia, Pa. Necktie.....	225,982	Mar. 30	1205	341	17	704
Hancock, George, North Adams, Mass. Fishing-reel.....	227,000	Apr. 27	1024	283	17	947
Hancock, James L., and N. Salamon, London, England. Elastic tire.....	232,266	Sept. 14	469	130	18	610
Hancock, John, Louisville, Ky. Peg-float.....	224,424	Feb. 10	518	148	17	308
Hand, David B., and E. H. Reitzel, Columbia, Pa. Pipe-coupling.....	230,018	July 13	591	164	18	105
Hand, Edward M., Fredericksburg, Iowa. Manure-rake.....	228,631	June 8	570	151	17	1324
Hand, Henry J. (See Barrows, William N., assignor.)						
Hand, John E., Philadelphia, Pa. Compass-adjusting binnacle.....	226,659	Apr. 20	619	173	17	871
Handforth, Benjamin, Hoboken, N. J. Curtain-fixture.....	227,001	Apr. 27	1024	284	17	948
Handren, John W., et al. (See Dickey, William D., assignor.)						
Hands, James O., Louisville, Ky. Coin holding and delivering device.....	226,514	Apr. 13	435	122	17	830
Haneline, Martin, assignor of one-half interest to T. T. Fowlkes, Joplin, Mo. Sash-fastener.....	226,312	Apr. 6	188	55	17	780
Haneline, Martin, Joplin, Mo. Nut-lock.....	234,277	Nov. 9	555	151	18	1087
Hankey, J. (See Springer, Joseph M., assignor.)						
Hankin, William H., Jr., Otisville, N. Y. Buck-saw frame.....	225,928	Mar. 30	1133	322	17	693
Hanley, Michael R., Fall River, Mass. Manufacture of dies.....	224,278	Nov. 9	556	151	18	1087
Hanley, Timothy, Boston Highlands, Mass. Lawn-edge mower.....	223,505	Jan. 13	365	97	17	77
Hanlon, John J., Chicago, Ill. Book-binding.....	223,672	Jan. 20	571	154	17	120
Hann, Edmund P., and G. W. Decker, Georgetown, D. C. Bolting-reel.....	233,411	Oct. 19	783	{ 215 216 }	18	882
Hanna, Cyrus T., Pittsburg, Pa. Wheat steamer and drier. (Reissue).....	9,367	Aug. 31	1517	424	18	517
Hanna, Louis G. (See Wetmore, Albert S., assignor.)						
Hannaford, William H., Lake, Ill. Boot and shoe.....	230,273	July 20	905	257	18	163
Hano, Samuel, Boston, Mass. Copying-book.....	224,529	Feb. 17	644	185	17	359
Hanrahan, Edward, assignor of one-half interest to F. E. Gale, Wellsville, N. Y. Whiffle-tree-hook.....	228,345	June 1	212	60	17	1261
Hanrahan, Edward, Wellsville, N. Y. Trace-carrier.....	231,314	Aug. 17	831	234	18	396
Hansell, Davis H. (See Woodruff, Charles D., assignor.) (Reissue.)						
Hansell, Walter P., Pittsburg, Pa. Vehicle-spring.....	230,272	July 20	903	257	18	163
Hansell, Walter P., Pittsburg, Pa. Apparatus for tempering coiled springs.....	233,242	Oct. 12	547	152	18	836
Hansen, Andreas, Des Moines, Iowa. Comb-frame tongs.....	225,519	Mar. 16	642	187	17	587
Hansen, Ludvig. (See Henriksen, Hans P., assignor.) (Reissue.)						
Hanson, Christian H. (See Christy, Fritz, assignor.)						
Hanson, Freeman, Hollis, assignor of four-fifths interest to D. H. Bacon, Portland, Me. Wood-cutting tool.....	225,474	Mar. 16	590	171	17	578
Hanson, Freeman, Hollis, Me. Lawn-mower.....	225,703	Mar. 23	863	252	17	635
Hanson, Freeman, Hollis, Me. Wood-turning machine.....	234,472	Nov. 16	803	216	18	1137
Hansen, Freeman, Hollis, Me. Wood-turning machine.....	235,526	Dec. 14	581	{ 165 166 }	18	1386
Hanson, John L. (See Mason and Hanson.)						
Hanson, Joseph, assignor to J. Hill, Derby, England. Hauling clip or griper.....	232,890	Oct. 5	116	31	18	757
Hansou, Oley C., Eureka, Cal. Shingle-sawing machine.....	235,233	Dec. 7	208	56, 57	18	1315
Hanson, Samuel W., West Union Court-House, W. Va. Substitute for cranks.....	229,700	July 6	215	58	18	39
Hanson, Swan. (See Leas and Hanson.)						
Hanson, Thomas, New York, N. Y. Faucet and waste-valve.....	235,429	Dec. 14	460	130	18	1366
Hanson, William S., Mount Pleasant, Iowa. Grain-car.....	228,814	June 15	821	224	17	1371
Happersberger, John, Cincinnati, Ohio. Electric clock.....	226,401	Apr. 13	289	85	17	808
Haptonstall, John, and S. Banks, assignors of one-third interest to A. G. Brenton, Adel, Iowa. Cooking apparatus and dinner-pail.....	224,425	Feb. 10	519	148	17	303
Harbach, Theodore J. (See Vick, Alfred, assignor.)						
Harbaugh, John R., Cicero, Ind. Plow attachment.....	228,192	June 1	37	12	17	1233
Harbaugh, Reuben E., Amity, and S. R. Owen, St. Joseph, Mo. Gate.....	232,711	Sept. 28	1000	{ 275 276 }	18	712
Harbeck, John S., Jr. (See Wilsdon, Richard, assignor.)						
Harbison, J. J., et al. (See Gathright, Josiah B., assignor.)						
Harbster, Matthan, et al. (See Rippien, Adolph, assignor.)						
Harbster, William, et al. (See Rippien, Adolph, assignor.)						
Harcum, Andrew, Scott township, Allegheny county, assignor to himself and G. A. Macbeth, Pittsburg, Pa. Apparatus for crimping lamp-chimneys and similar articles.....	232,492	Sept. 21	753	208	18	663
Hardaker, John and L., Leeds, England. Loom-temple.....	228,256	June 1	116	33	17	1245
Hardaker, John, Leeds, York county, England. Self-acting temple for looms.....	231,809	Aug. 31	1411	398	18	500
Hardaker, Louis. (See Hardaker, John and L.)						
Harden, John H., Philadelphia, Pa. Parallel ruler.....	230,008	July 13	531	161	18	104
Harder, Eugene. (See Harder, William, assignor.) (Reissue.)						
Harder, Lewis P., Hoosick Falls, N. Y. Stove-cover lifter.....	223,461	June 8	356	97	17	1293
Harder, William, assignor to E. Harding, Pittsfield, Mass. Thill-coupling.....	225,011	Mar. 2	34	10	17	462
Harder, William, assignor to E. Harder, Pittsfield, Mass. Thill-coupling. (Reissue).....	9,278	July 6	328	91	18	56

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Hardin, John J. (See Harris and Hardin.)						
Harding, Emmett, West Troy, N. Y. Combined life-raft and settee.....	232,891	Oct. 5	117	31	18	757
Harding, Eugene. (See Harder, William, assignor.)						
Harding, Fred. E. (See Allen, Fred. A., assignor.)						
Harding, J. Morris, Philadelphia, Pa. Seal-press.....	227,522	May 11	502	144	17	1071
Harding, Justus, Effingham, Ill. Nut-lock.....	230,009	July 13	582	161	18	104
Hardisty, Richard E., Cincinnati, Ohio. Auger.....	235,234	Dec. 7	210	57	18	1315
Hardman, Dowling & Peck. (See Hardman, John, assignor.)						
Hardman, John, assignor to Hardman, Dowling & Peck, New York, N. Y. Piano-forte.....	229,820	July 13	370	102	18	71
Hardman, John, assignor to Hardman, Dowling & Peck, New York, N. Y. Piano-forte ac- tion-frame.....	235,357	Dec. 14	370	102	18	1350
Hardy, Edwin J., Buffalo, N. Y. Street-sign.....	230,007	July 13	581	161	18	104
Hardy, Isham T., and N. H. Dibble, St. Louis, Mo. Lubricator.....	228,892	June 15	906	248	17	1383
Hardy, Isham T., St. Louis, Mo. Lubricator.....	233,347	Oct. 19	700	191	18	869
Hardy, Joseph N., New Orleans, La. Fare-register.....	231,165	Aug. 17	665	188	18	368
Hardy, Marcus A., Newport, R. I. Galvanic battery.....	229,122	June 22	1173	321	17	1430
Hardy, William A. (See Pinder and Hardy.)						
Harger, Joel P. (See Keith, Horace M., assignor.)						
Hargrave, Moses C., assignor of one-half interest to J. G. L. Gieschen, Wilmington, N. C. Hame-hook.....	232,960	Oct. 5	198	52	18	770
Hargreaves, George, Detroit, Mich. Match-splint.....	235,765	Dec. 21	865	241	18	1440
Haring, Cornelius A., Peoria, assignor of one-half interest to M., Sr., and M. W. Hicks, Streator, Ill. Hoisting and dumping apparatus.....	228,754	June 15	740	204	17	1360
Haring, John C., Jersey City, N. J. Stylographic fountain-pen.....	233,616	Oct. 26	1034	288	18	934
Haring, Nicholas R. (See McCormick, George W., assignor.)						
Haring, William N., Jersey City, N. J., assignor of one-half interest to J. C. Klatzl, New York, N. Y. Car-coupling.....	227,770	May 18	792	224	17	1127
Haring, William N., Jersey City, N. J., assignor of one-half interest to J. C. Klatzl, New York, N. Y. Coupling for car-brakes.....	231,564	Aug. 24	1112	312	18	446
Haring, William N., Jersey City, N. J., assignor to J. C. Klatzl, New York, N. Y. Means for coupling cars.....	231,565	Aug. 24	1113	312	18	447
Harkins, William, Dunkirk, N. Y. Car-coupling.....	224,777	Feb. 24	955	272	17	406
Harkins, William, Dunkirk, N. Y. Car-coupling.....	226,170	Apr. 6	26	7	17	751
Harkins, William, Dunkirk, N. Y. Car-coupling.....	227,246	May 4	186	54	17	1008
Harkrader, David M., Barry, Ill. Draft-equalizer.....	231,037	Aug. 10	512	144	18	336
Harley, John, assignor to himself and J. B. Newman, Wallaceburg, Ontario, Canada. Sash- fastener.....	232,710	Sept. 28	1000	275	18	712
Harley, Joseph L., Baltimore County, Md. Steam-stove.....	226,313	Apr. 6	189	55	17	780
Harley, Joseph L., Baltimore County, Md. Steam-heating apparatus.....	226,745	Apr. 20	708	197	17	885
Harlow, A. T. (See Israel, Alexander C., assignor.)						
Harlow, Charles F., Boston, and W. P. Barker, Orange, Mass. Clutch.....	227,523	May 11	503	144	17	1071
Harlow, Charles F., Boston, Mass. Sewing-machine.....	231,568	Aug. 24	1117	313	18	447
Harman, John A., Lexington Court-House, S. C. Horse-detacher.....	232,027	Sept. 7	185	50	18	554
Harman, William H., Millerstown, Pa. Combined cider press and mill.....	235,430	Dec. 14	461	130	18	1366
Harmon, Alpheus B., Traer, Iowa. Swing.....	228,065	May 25	1149	327	17	1195
Harmon, E. (See Abbott, John M., assignor.)						
Harmon, Edward W., et al. (See Knubley, John W., assignor.)						
Harmon, Edward W., Haverhill, assignor of three-fourths interest to F. Amory, Beverly, S. Snow, Cambridge, and O. J. Noble, Boston, Mass. Flat-iron heater.....	223,506	Jan. 13	367	98	17	77
Harmon, John W., Boston, Mass. Leveling-instrument.....	234,709	Nov. 23	1113	300	18	1194
Harmstead, Charles A., Urbana, Ohio. Breast-collar stay-fastening.....	233,093	Oct. 12	370	102	18	805
Harney, Matthew L., et al. (See Brown, John D., assignor.)						
Harnish, Abraham, Intercourse, Pa. Apparatus for steaming tobacco.....	226,515	Apr. 13	437	122	17	831
Harper, James M., El Paso, Ill. Corn-popper.....	229,123	June 22	1174	322	17	1430
Harper, Leverett, Sioux Falls, Dak. Ter. Hay-burner attachment for stoves.....	224,683	Feb. 17	827	234	17	370
Harper, Samuel C. (See Sawyers, Theodore K., assignor.)						
Hart, Jesse M., Baltimore, Md. Vault-light and skylight.....	227,247	May 4	187	54	17	1008
Harrington, Dennis, New York, N. Y. Movable cattle-pen.....	223,729	Jan. 20	629	169	17	129
Harrington, Heber W., Fort Dodge, Iowa. Cartridge capping and uncapping tool.....	232,028	Sept. 7	186	50	18	555
Harrington, John A. (See Harrington, John R., assignor.)						
Harrington, John A., Groesbeck, Tex. Spoke-socket.....	232,267	Sept. 14	470	130	18	610
Harrington, John C. (See Dolloff, Wellington P., assignor.)						
Harrington, John R., Brooklyn, N. Y., assignor to J. A. Harrington, North Columbia, Cal. Manufacture of carpet-lining.....	232,962	Oct. 5	200	53	18	770
Harris, Abraham W. (See Harris, Elisha, assignor.)						
Harris, Benjamin G., et al. (See Egerton, C. Calvert, assignor.)						
Harris, Benjamin G., et al. (See Hazelip, Joseph N., assignor.)						
Harris, Bradner L., Detroit, Mich. Grain-drier.....	229,124	June 22	1175	322	17	1430
Harris, Burnett B., South Bend, Ind. Casting chilled mold-boards.....	228,064	May 25	1148	{ 326 327 }	{ 17 17 }	{ 1195 1195 }
Harris, Christopher C., et al. (See Furney, Elliott E., assignor)						
Harris, David, assignor of one-half interest to E. E. Ephraim, San Francisco, Cal. Umbrella..	228,894	June 15	908	248	17	1383
Harris, Dwight C., Borden, Cal. Windmill.....	233,928	Nov. 2	115	31	18	1006
Harris, Elisha, assignor of one-half interest to A. W. Harris, Providence, R. I. Spinning ring and frame.....	232,818	Oct. 5	25	7, 8	18	743
Harris, Enoch, North La Crosse, Wis. Sieve for fanning-mills.....	227,625	May 18	622	178	17	1102
Harris, Fadelshon, Rockport, Ill. Measuring-pump.....	231,795	Aug. 31	1394	393	18	498
Harris, George E., Lawrenceville, Pa. Vehicle-spring.....	234,403	Nov. 16	724	195	18	1124
Harris, George F., New York, N. Y. Construction-car.....	229,702	July 6	218	59	18	40
Harris, George R. (See Walker, David A., assignor.)						
Harris, Henry A. (See Anderson and Hastings, assignors.)						
Harris, Ira F., assignor of one-fourth interest to F. A. Eaton, Nashua, N. H. Coal-sifter...	226,913	Apr. 27	919	255	17	931
Harris, J. Nelson, Louisville, Ky. Grate and fender for fire-places.....	228,994	June 22	1040	283	17	1410
Harris, John, and W. K. Patrick, Hinesburg, Vt. Wagon-axle cutter.....	224,824	Feb. 24	1009	286	17	415
Harris, John J., Wilmington, Del. Dampening device for paper-making machines.....	231,038	Aug. 10	512	144	18	336
Harris, John K., Springfield, Ohio. Button-hole attachment for sewing-machines.....	235,235	Dec. 7	210	57	18	1315
Harris, Leo O., assignor of one-half interest to S. W. Barnett, Greenfield, Ind. Bulletin- board.....	224,684	Feb. 17	828	234	17	370
Harris, Robert S., Dubuque, Iowa. Fire-escape ladder.....	231,567	Aug. 24	1116	313	18	447
Harris, Silas, San Francisco, Cal. Railway-rail joint.....	227,896	May 25	954	273	17	1165
Harris, Silas, San Francisco, Cal. Knob attachment.....	231,223	Aug. 17	742	208	18	380
Harris, Silas, San Francisco, Cal. Harrow.....	232,641	Sept. 28	922	253	18	699
Harris, Trion T., and J. J. Hardin, assignors to C. R. Saxton and C. P. Deshazo, Cottondale, Ala. Combined reed-hook and picking-comb.....	234,981	Nov. 30	1453	391	18	1257



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Harris, William. (See Steinfelds, Charles, assignor.)						
Harris, William E., assignor of one-half interest to F. J. Hoyt, New York, N. Y. Mining-pump	223,848	Jan. 27	783	209	17	164
Harris, William M., assignor of one-half interest to G. Shado, Davenport, Iowa. Spring-vehicle.	222,462	June 8	356	97	17	1294
Harris, William P. (See Reynolds, Jerome B., assignor.)						
Harris, William W. (See Perkins and Harris.)						
Harrison, Andrew L., Bristol, Conn. Lubricator for steam-engines.	225,124	Mar. 2	167	48	17	485
Harrison Brothers & Co. (See Fisher, Robert A., assignor.)						
Harrison Brothers & Co. (See Laur, Francis, assignor.) (Reissue.)						
Harrison, Charles R., Fond du Lac, Wis. Lamp.	232,961	Oct. 5	199	52	18	770
Harrison, Charles W., Kensington, assignor of one-half interest to T. Blake, Penge, near London, England. Electric lamp.	234,032	Nov. 2	257	70	18	1023
Harrison, James M., Hollansburg, Ohio. Hand corn-planter.	227,769	May 18	790	224	17	1127
Harrison, Jamison H. (See Cummings and Harrison.)						
Harrison, John D. (See Chinnock, Charles E., assignor.)						
Harrison, John J., et al. (See Harrison, Jonathan W., assignor.) (Reissue.)						
Harrison, John J., et al. (See Whitcomb, George D., assignor.)						
Harrison, John N., and E. F. Wilson, Rochester, N. Y.; said Harrison assignor to said Wilson. Pruning implement.	223,625	Jan. 13	506	137	17	100
Harrison, Jonathan W., (S. J. Harrison, guardian,) Jackson, assignor, by mesne assignments, of one-half interest to C. R. Miller, Adrian, Mich. Coal-mining machine. (Reissue.)	9,408	Oct. 12	647	179	18	853
Harrison, Jonathan W., (S. J. Harrison, Jackson, Mich., guardian,) assignor of two-thirds interest to J. J. Harrison and O. Butler. Coal-mining machine. (Reissue.)	9,439	Nov. 2	341	94	18	1044
Harrison Machine Works. (See Stout, James A., assignor.)						
Harrison, Mordecai, Columbia, S. C. Plumb-level.	223,343	Jan. 6	158	41	17	29
Harrison, Reuben M., Newark, N. J., assignor to J. W. Brooks, trustee, Boston, Mass. Heeling-machine.	233,504	Oct. 19	881	243	18	898
Harrison, Sarah, et al. (See Whitcomb, George D., assignor.)						
Harrison, Sarah J., guardian. (See Harrison, Jonathan W.) (Reissue.)						
Harrison, Thomas D. (See Spencer, Lewis W., assignor.)						
Harrison, Thomas H., Marshall, Mo. Coffee-pot.	232,817	Oct. 5	25	7	18	742
Harrison, Thomas T., Aubrey, Kans. Sulky-plow.	232,268	Sept. 14	471	130 131	18	610
Harrison, William, London, Ontario, Canada. Grain-binder.	235,607	Dec. 14	677	192	18	1402
Harrison, William H. (See Bowers and Harrison.)						
Harrison, William H., Louisville, Ky. Steam-boiler furnace.	231,315	Aug. 17	832	234	18	396
Harrison, William H., assignor to himself, T. W. Lord, and F. B. Allen, Newark, N. J. Curtain-fixture	232,963	Oct. 5	202	53	18	771
Harrison, William P., Warren, Ohio. Chain-pump bucket.	231,566	Aug. 24	1115	312	18	447
Harrod, William. (See Bayliff and Harrod.) (Reissue.)						
Harron, Samuel V., et al. (See Wheelwright, Sherburn, assignor.)						
Harrop, Joseph M., Quincy, Ill. Refrigerator.	233,243	Oct. 12	549	152	18	837
Harsha, W. M., et al. (See McClintock, William A., assignor.)						
Hart, Edwin J., Butler, Pa. Gate.	235,358	Dec. 14	371	102	18	1351
Hart, Gerald W., New Britain, Conn. Buckle.	226,914	Apr. 27	920	256	17	931
Hart, Gilbert, Detroit, Mich. Emery-wheel.	226,066	Mar. 30	1303	367	17	719
Hart, Gilbert, Detroit, Mich. Grinding and polishing wheel.	228,257	June 1	117	34	17	1245
Hart, Henry N. (See Marcus, Solms, assignor.)						
Hart, John W. (See Griffin, Michael, assignor.)						
Hart, Nathan, and R. A. Bacon, New York, N. Y. Decorating celluloid.	233,851	Nov. 2	31		18	992
Hart, Stacy B., Peoria, Ill. Adjustable feed-plate for corn-planters.	227,771	May 18	793	224	17	1127
Hart, Stacy B., Peoria, Ill. Spring-hoe attachment for seeding-machines.	234,566	Nov. 16	918	247	18	1156
Hart, William A., Buffalo, N. Y. Globe-valve.	225,369	Mar. 9	462	135	17	546
Hart, William E., assignor to himself and C. W. Samuel, Cedar City, Mo. Harvester.	230,019	July 13	591	164	18	105
Hart, William H., Jr., Philadelphia, Pa. Necktie-shield.	235,527	Dec. 14	583	166	18	1386
Hartenstein, Franz L., Nashville, Tenn. Driving mechanism for sewing-machines.	232,491	Sept. 21	752	208	18	663
Harter, Isaac. (See Kohler, Frederick E., assignor.)						
Harter, Joseph, Tiffin, Ohio. Road-scraper.	235,431	Dec. 14	462	131	18	1366
Harter, M. D., administrator. (See Allonas, Joseph.)						
Hartford Machine Screw Company. (See Spencer, Christopher M., assignor.)						
Hartford Machine Screw Company. (See Spencer, Christopher M., assignor.) (Reissue.)						
Hartford Sanitary Plumbing Company. (See Hogan, Matthew, assignor.)						
Hartig, George, Brixton, county of Surrey, England. Window-screen.	223,341	Jan. 6	156	40, 41	17	23
Hartig, George, Brixton, county of Surrey, England. Window-sash.	223,342	Jan. 6	157	41	17	28
Hartin, Philip, assignor to Welsh & Lea, Philadelphia, Pa. Tool for pointing bolts.	235,766	Dec. 21	866	242	18	1440
Hartley, D. Bert, Kansas City, Mo. Reclining-chair.	229,701	July 6	215	59	18	40
Hartley, Edward F. (See Simmons, James, assignor.)						
Hartley, Marcellus. (See Glover, Samuel, assignor.)						
Hartley, Tilghman, Salem, Ind. Straw-cutter.	231,422	Aug. 24	955	269	18	422
Hartman, Aaron B., assignor to himself and J. M. Jividen, Onawa, Iowa. Fence-post.	224,902	Feb. 24	1098	314	17	429
Hartman, Henry, assignor of one-half interest to A. McKellar, Salt Lake City, Utah Ter. Bridle.	229,405	June 29	1502	414	17	1483
Hartman, John M., Philadelphia, Pa. Hot-blast stove.	224,089	Feb. 3	142	40	17	227
Hartman, John M., Philadelphia, Pa. Regenerative hot-blast oven.	227,430	May 11	400	117	17	1053
Hartman, John M., Philadelphia, Pa. Blast-furnace.	228,528	June 8	440	120	17	1305
Hartman, John M., Philadelphia, Pa. Blast-furnace.	229,883	July 13	441	121	18	82
Hartmann, Carl P., Wüste-Waltersdorf, Prussia, Germany. Treating textile fabrics.	227,248	May 4	188	55	17	1008
Hartmanu, Dominikus, Mansfield, Ohio. Combination-tool.	227,773	May 18	796	225	17	1128
Hartmann, Wilhelm E. A., Trafalgar Terrace, Swansea, Great Britain. Manufacture of hydrogen sulphide.	224,426	Feb. 10	520	149	17	308
Hartmann, William E., and A. Raymond, Philadelphia, Pa. Friction-clutches for machinery.	230,773	Aug. 3	201	58, 59	18	279
Hartmeyer, John, and B. L. Gray, Zanesville, Ohio. Water-cooler.	231,717	Aug. 31	1297	365	18	483
Harton, Pembroke D. (See Geisinger, John, assignor.)						
Hartsook, Marius M., Nelson County, Va., assignor of one-half interest to R. K. Campbell. Hay-press.	232,123	Sept. 14	294	83	18	580
Hartsuck, George D., Kendallville, Ind. Carpet-stretcher.	227,524	May 11	503	144	17	1072
Hartzell, Francis S., Bean, Pa. Lifting-jack.	229,406	June 29	1503	414	17	1483
Harvard Clock Company. (See Gerry, James H., assignor.)						
Harvey, Andrew, Detroit, Mich. Coupling for steam-supply pipes.	233,412	Oct. 19	785	216	18	882
Harvey, Edward. (See Beidler, Charles, assignor.)						
Harvey, George A., Chicago, Ill. Corn-harvester.	235,869	Dec. 28	1010	279 280	18	1473



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Harvey, Hayward A., Orange, N. J. Machine for rolling threads of screws or bolts.....	223,730	Jan. 20	630	{ 169 170 }	{ 17 }	129
Harvey, Hayward A., Orange, N. J. Lock-nut.....	224,591	Feb. 17	725	206	17	353
Harvey, Moses B., Leavenworth, Kans. Compound engine.....	227,772	May 18	794	{ 224 225 }	{ 17 }	1128
Harvey, Urias R., Perlee, Iowa. Last-block fastener.....	227,429	May 11	400	116	17	1053
Harvey, William, <i>et al.</i> (See Gerald, Amos F., assignor.)						
Harvey, Willis H., Somerville, Tenn. Horse-power for gins, &c.....	229,407	June 29	1504	415	17	1483
Harvey, Willis H., Somerville, Tenn. Horse-power for gins, &c.....	233,244	Oct. 12	550	153	18	837
Harwood, Joseph A., <i>et al.</i> (See Glover, Robert, assignor.)						
Harwood, Nahum, <i>et al.</i> (See Glover, Robert, assignor.)						
Hasbrouck, Frederick S., New York, N. Y. Book-binding. (Reissue).....	9,275	July 6	324	91	18	56
Hasdentenfel, Friedrich, Iserlohn, Prussia, Germany. Lock.....	224,288	Feb. 10	367	105	17	284
Hasenzahl, William, Cincinnati, Ohio. Boring-tool for stone-working, &c.....	224,530	Feb. 17	646	185	17	340
Haskell, Daison E., Cazenovia, N. Y. Hay-knife.....	226,746	Apr. 20	709	197	17	885
Haskell, John B., Staunton, Va. Combined cooking-can and dinner-pail.....	230,274	July 20	907	258	18	164
Haskell, Orson S., Evanston, Ill. Map.....	230,010	July 13	583	{ 161 162 }	{ 18 }	104
Haskell, Orville C., Chicago, Ill. Corset-clasp.....	225,520	Mar. 16	642	187	17	587
Haskin, Uri, Pittsburg, Pa., assignor to D. Porter & Co., (limited.) Clutch for rolls.....	228,893	June 15	907	248	17	1333
Haskins, Charles D., New York, N. Y. Telephone-call.....	234,772	Nov. 23	1184	320	18	1206
Haskins, Charles D., New York, N. Y. Switch for telephone-lines.....	234,773	Nov. 23	1186	{ 320 321 }	{ 18 }	1206
Haskins, David G., Cambridge, Mass. Screw-propeller.....	224,289	Feb. 10	368	105	17	284
Haslehurst, Theodore E., <i>et al.</i> (See Babcock, Stephen E., assignor.)						
Haslehurst, Theodore E., <i>et al.</i> (See Burns, John, assignor.)						
Haslehurst, Theodore E., <i>et al.</i> (See Fitzhugh, Henry M., assignor.)						
Haslup, William, Sidney, Ohio. Earth-scraper.....	234,982	Nov. 30	1454	391	18	1257
Hassall, John. (See Smith and Hassall.)						
Hassall, William. (See Smith and Hassall, assignors.)						
Hasse, Max, Berlin, Germany. Drop-hammer.....	228,067	May 25	1152	328	17	1196
Hasselman, Lewis W., Indianapolis, Ind. Portable engine.....	224,427	Feb. 10	522	149	17	309
Hasselman, Lewis W., Indianapolis, Ind. Horse-power.....	233,413	Oct. 19	785	216	18	882
Hassenpflug, Henry, Huntingdon, Pa. Mechanical movement.....	235,432	Dec. 14	463	131	18	1367
Hassinger, Charles, Plymouth, Mich. Whiffletree.....	225,371	Mar. 9	464	135	17	547
Hastings, Albert M. (See Fickett, Albert, assignor.)						
Hastings, Azariah H., New York, N. Y. Piano-forte.....	232,260	Sept. 14	472	131	18	611
Hastings, Charles M., <i>et al.</i> (See Lighthall, William A., assignor.)						
Hastings, Emory B., assignor of one-half to R. L. Goddard and J. F. Holbrook, Palmer, Mass. Ore-separator.....	236,023	Dec. 28	1198	331	18	1503
Hastings, Horace L., Boston, Mass. Blank music-paper.....	225,596	Mar. 16	724	213	17	603
Hastings, James L., Bellefonte, Pa. Low-water gage and alarm.....	226,171	Apr. 6	27	7, 8	17	751
Hastings, James T., Chicago, Ill. Ash-sifter.....	234,033	Nov. 2	258	70	18	1028
Hastings, John F. (See Rancevan, John, assignor.)						
Hastings, John P. (See Anderson and Hastings.)						
Hastings, John R., Lampasas, Tex. Military saddle.....	232,712	Sept. 28	1002	276	18	712
Hastings, Louis E. (See Ordway, Albert H., assignor.)						
Hastings, Orlando B., Brooklyn, assignor to A. M. Collins, Cope & Co., New York, N. Y. Making colored-edged cards, &c.....	232,965	Oct. 5	204	55	18	771
Hatch, Azel F. (See Wemple, Andrew, assignor.)						
Hatch, Edward, <i>et al.</i> (See Lothrop, Chauncey M., assignor.)						
Hatch, George C., Bridgeport, Conn. Coin-holder.....	224,825	Feb. 24	1010	286	17	415
Hatch, Jefferson C., and L. H. Fortune, Felt's Mills, N. Y. Feather-renovator.....	235,236	Dec. 7	212	57	18	1316
Hatch, John C., <i>et al.</i> (See Lothrop, Chauncey M., assignor.)						
Hatchman, Robert, assignor to Detroit Stove Works, Detroit, Mich. Attachment for magazine-stoves.....	225,597	Mar. 16	725	214	17	603
Hatfield, James F., Cambridge City, Ind. Grain-separator.....	234,034	Nov. 2	259	70, 71	18	1029
Hatfield, Peter, Belmont, Wis. Stock-salter.....	232,124	Sept. 14	295	83	18	580
Hathaway, Ebenezer, and T. H. Myers, Hume, Ill. Car-coupling.....	229,408	June 29	1505	415	17	1484
Hathaway, George M., assignor of one-half interest to C. M. Newcomb, Elmira, N. Y. Permutation-padlock.....	226,069	Mar. 30	1306	368	17	719
Hathaway, Marvin P., Decorah, Iowa. Coffee-pot attachment.....	228,632	June 8	571	151	17	1324
Hatheway, William S., Deansville, N. Y. Process of and apparatus for making butter.....	234,867	Nov. 30	1310	353	18	1233
Hauck, Edward J., Brooklyn, N. Y. Eyeglass-case.....	232,493	Sept. 21	755	209	18	663
Hauenstein, Louis C. (See Hille, Paul, assignor.)						
Hauff, Julius, Feuerbach, Württemberg, Germany. Compound for preserving animal and vegetable substances.....	234,567	Nov. 16	920	.....	18	1157
Haug, Edmund, Whistler, Ala. Balance slide-valve.....	225,370	Mar. 9	463	135	17	547
Haug, Edmund, Whistler, Ala. Sash-holder.....	232,270	Sept. 14	473	131	18	611
Haug, Edmund, Whistler, Ala. Balance slide-valve.....	232,271	Sept. 14	474	131	18	611
Haughwout, Joseph H., Fairmont, Nebr. Grain-binder.....	233,852	Nov. 2	32	8	18	992
Haughton, Marcus L., Lake Landing, N. C. Hame-tug.....	223,910	Jan. 27	862	229	17	177
Haulenbeck, Isaac P., Newark, N. J. Alarm-recorder for fire-telegraphs.....	224,903	Feb. 24	1098	314	17	429
Haulenbeck, John H. (See Beatty, Robert P., assignor.)						
Haunson, John T., Asheville, N. C. Car-coupling.....	226,314	Apr. 6	190	56	17	780
Haupt, Herman, Philadelphia, Pa. Device for slack-water navigation.....	225,125	Mar. 2	169	48	17	485
Haupt, Herman, Philadelphia, Pa. Device for rendering rivers navigable.....	228,633	June 8	572	152	17	1325
Haupt, Jacob B., assignor of one-half interest to S. T. Lewis, Philadelphia, Pa. Steam-generator.....	230,938	Aug. 10	402	116	18	320
Hausler, Anton. (See Rost, F. Julius, assignor.)						
Havell, George, Newark, N. J. Clock-case.....	228,193	June 1	38	12	17	1233
Haven, James L. (See Mooney, John B., assignor.)						
Haven, James L., Cincinnati, Ohio. Machine for trimming the ends of vehicle-axle boxes.....	233,150	Oct. 12	439	{ 120 121 }	{ 18 }	817
Havener, Richard H. (See Dunn and Havener.)						
Havenstrite, David J., Newark, N. J. Traction-engine.....	231,569	Aug. 24	1118	313	18	448
Haviland, John T., San Francisco, Cal. Picture-hook.....	230,701	Aug. 3	121	35	18	266
Hawes, Manson D. (See Hadley and Joyce, assignors.)						
Hawes, William H., New York, N. Y. Pigeon-trap.....	223,344	Jan. 6	159	41	17	29
Hawk, Jacob, and J. Miller, assignors to C. Aultman & Co., Canton, Ohio. Thrashing-machine.....	235,631	Dec. 21	711	202	18	1415
Hawkes, George F., and H. Madeheim, New York, N. Y. Stylegraphic fountain-pen.....	223,644	Jan. 20	537	145	17	115
Hawkes, George F., New York, N. Y. Stylegraphic pen.....	234,182	Nov. 9	437	118	18	1067
Hawkes, Gilbert, Lynn, Mass. Lasting-machine.....	232,964	Oct. 5	203	54	18	771

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Hawkins, Cyrus H., New York, N. Y. Slide-valve.	227,165	May 4	91	25	17	993
Hawkins, Daniel, East Otto, N. Y. Combined boiler and heater.	225,823	Mar. 23	1004	288	17	658
Hawkins, Horace E., Akron, Ohio. Seeder and fertilizer.	231,570	Aug. 24	1119	313	18	448
Hawkins, John T., Brooklyn, N. Y. Delivery apparatus for printing-presses.	225,280	Mar. 9	364	107	17	530
Hawkins, John T., Brooklyn, N. Y. Counting-register.	227,975	May 25	1050	299	17	1179
Hawkins, John T., Brooklyn, N. Y. Feeding mechanism for printing-machines.	228,529	June 8	441	120	17	1306
Hawkins, Nehemiah, Chicago, Ill. Screw-conveyer.	234,868	Nov. 30	1312	354	18	1233
Hawkins, Thomas. (See Thibault and Hawkins.)						
Hawks, James D., Painesville, Ohio. Angle-splice for railway-joints.	228,347	June 1	213	60	17	1262
Hawley, Albert E., Westfield, Mass. Whip-socket fastener.	225,281	Mar. 9	365	107	17	530
Hawley, Frederick R., Syracuse, N. Y. Churn.	223,286	Jan. 6	96	23	17	19
Hawley, Koert D., <i>et al.</i> (See Anderson, George W., assignor.)						
Hawley, Lewis T., Syracuse, N. Y. Device for preserving butter.	227,432	May 11	403	117	17	1054
Hawley, Walter N., San Francisco, Cal. Street-car.	230,774	Aug. 3	203	59	18	279
Haworth, George D., Decatur, Ill. Machine for forming loops for wires.	233,751	Oct. 26	1187	329	18	960
Haworth, George D., Decatur, Ill. Reel for check-lines for corn-planters.	236,024	Dec. 28	1200	331	18	1504
Haworth, George D., Decatur, Ill. Coupling hook or button for check-row cords.	236,025	Dec. 28	1201	332	18	1504
Haworth, Wade H., Towanda, Ill. Corn-planter.	228,068	May 25	1153	328	17	1196
Hay, Jacob, <i>et al.</i> (See Raby, Richard, Jr., assignor.)						
Haycox, Edward, Detroit, Mich. Grate-bar.	225,521	Mar. 16	643	187	17	587
Hayden, Austin B., Auburn, N. Y. Extension-table.	228,066	May 25	1150	327	17	1195
Hayden, Charles H., Columbus, Ohio. Fire-kindler. (Reissue.)	9,201	May 18	905	258	17	1146
Hayden, Daniel H., Ada, Ohio. Dust and cinder arrester.	229,125	June 22	1176	322	17	1430
Hayden, Daniel W., Providence, R. I. Stop mechanism for drawing-frames.	227,002	Apr. 27	1025	284	17	948
Hayden, Daniel W., Providence, R. I. Stop mechanism for drawing-frames.	227,003	Apr. 27	1026	284	17	948
Hayden, Fannie J., <i>et al.</i> (See Hayden, Joel B., assignor.)						
Hayden, Henry, Jr. (See Reynolds, John R., assignor.)						
Hayden, Hiram W., assignor to Holmes, Booth & Haydens, Waterbury, Conn. Lamp-burner.	225,054	Mar. 2	95	26	17	472
Hayden, Hiram W., assignor to Holmes, Booth & Haydens, Waterbury, Conn. Lamp-burner and chimney.	225,929	Mar. 30	1134	323	17	693
Hayden, James, Philadelphia, Pa. Suspenders.	225,821	Mar. 23	1004	288	17	658
Hayden, James T., Cambridgeport, Mass. Tap.	226,067	Mar. 30	1304	367	17	719
Hayden, Joel B., assignor to F. J. Hayden, Hempstead, and F. J. Hoyt, New York, N. Y. Faucet and cap.	224,904	Feb. 24	1100	314	17	430
Hayden, Joel B., Hempstead, assignor of one-half to J. L. Spofford, New York, N. Y. Lager-beer keg.	234,473	Nov. 16	806	216	18	1137
Hayden, John R., and W. H. Thiel, Bloomington, Ill. Ventilator for cars, &c.	230,011	July 13	583	162	18	104
Hayden, Joseph L., Cambridgeport, Mass. Machinery for grinding cocks.	223,507	Jan. 13	369	98	17	78
Hayden, Randolph, Middletown, Conn. Wrench.	228,755	June 15	741	204	17	1360
Hayden, Randolph, Middletown, Conn. Shutter-fastener.	234,126	Nov. 9	372	102	18	1055
Hayden, William B., Columbus, Ohio. Machine for reeling wire.	231,571	Aug. 24	1120	314	18	448
Hayden, William B., Columbus, Ohio. Hame-strap attachment.	233,675	Oct. 26	1104	307	18	946
Hayes, Calvin Q., Spring Green, Wis. Shaft-coupling.	225,126	Mar. 2	172	48	17	485
Hayes, Charles. (See Hayes, George and C.)						
Hayes, Daniel D., San Francisco, Cal. Coupling for connecting fire-engines with hydrants, &c.	232,495	Sept. 21	756	209	18	664
Hayes, George, Girardville, Pa. Compound for preparing the wicks or matches of miners' squibs.	230,775	Aug. 3	204		18	280
Hayes, George and C., New York, N. Y.; said C. Hayes assignor to said George Hayes. Sink.	233,674	Oct. 26	1103	307	18	946
Hayes, Isaac, Philadelphia, Pa. Grate for stoves and furnaces.	232,494	Sept. 21	755	209	18	663
Hayes, James H. (See Pemble and Hayes.)						
Hayes, James H., assignor to himself, C. J. Greene, and T. J. Wimmer, Cerro Gordo, Ill. Nut-lock.	223,909	Jan. 27	861	228	17	177
Hayes, Miles T., Burlington, Wis. Collar and hame fastener.	227,431	May 11	402	117	17	1054
Hayes, Samuel J., E. T. Jeffery, and H. Schlacks, Chicago, Ill. Purifying feed-water for boilers.	226,066	Mar. 30	1305	368	17	719
Hayes, Theodore E., Dubuque, Iowa. Rope-reel.	231,796	Aug. 31	1395	394	18	498
Hayes, William E. (See Patterson and Hayes.)						
Hayes, William H. (See Barry, James R., assignor.)						
Hayne, John S., Marshalltown, Iowa. Barb bender and cutter.	234,671	Nov. 23	1072	289	18	1188
Haynes, Charles F., Skowhegan, Me. Carriage-lifter.	230,275	July 20	908	258	18	164
Haynes, Clinton C. (See Adams and Haynes.)						
Haynes, Clinton C., Wilmington, Vt. Milk-cooler.	228,756	June 15	742	{ 204 205 }	{ 17 17 }	{ 1360 1360 }
Haynes, Edgar K. (See Murdoch and Haynes.) (Reissue.)						
Haynes, Noah, San José, Cal. Sash-fastener.	229,884	July 13	442	122	18	82
Haynes, Thomas, Kansas City, Mo. Car-axle box.	225,219	Mar. 9	280	80, 81	17	518
Hays, Charles B., and J. M. Newark, N. J. Celluloid belt for wearing-apparel.	233,414	Oct. 19	786	216	18	883
Hays, Edward, Rochester, N. Y. Steam-valve for radiators.	231,039	Aug. 10	514	144	18	337
Hays, James M. (See Hays, Charles B., and J. M.)						
Hays, William H., <i>et al.</i> (See Nelson, James S., assignor.)						
Hayt, Ezra A., Patterson, N. Y. Apparatus for refrigerating rooms.	235,870	Dec. 28	1011	280	18	1473
Haytt, Antone, San Francisco, Cal. Sash-fastener.	235,632	Dec. 21	713	203	18	1415
Hayward, Calvin D. (See Tilden, Howard, assignor.)						
Hayward, Charles E., Attleborough, Mass. Bracelet.	228,348	June 1	214	60	17	1262
Hayward, Emma L. (See Gregerson, George J., assignor.)						
Hayward, Francis A. (See Thompson and Hayward.)						
Hayward, Henry, New York, N. Y. Preparation of bank-note paper.	225,279	Mar. 9	362	106	17	530
Hayward, Henry, New York, N. Y. Paper and process of making the same.	226,660	Apr. 20	620	173	17	871
Hayward, Henry, New York, N. Y. Compound paper floor-covering.	228,194	June 1	39		17	1233
Hayward, Oliver C., Washington, D. C. Scissors.	236,026	Dec. 28	1202	332	18	1504
Hayward, Samuel S., Norwich, N. Y. Milk-cooler.	232,026	Sept. 7	184	49	18	554
Hayward, William S., assignor to Rice & Hayward, Providence, R. I. Cracker-packing machine.	233,245	Oct. 12	551	153	18	837
Hazard, Alexander, <i>et al.</i> (See Hugentobler, Emil M., assignor.)						
Hazard, Arthur P., Brockton, Mass. Shoe-maker's edge-plane. (Reissue.)	9,167	Apr. 20	796	222	17	901
Hazard, Charles L., East Providence, R. I. Button.	231,572	Aug. 24	1122	314	18	448
Hazel, Henry, Cressona, Pa. Car-axle box.	234,568	Nov. 16	921	247	18	1157
Hazlip, Joseph N., assignor of one-half to B. G. Harris, Baltimore, and W. Canby, Baltimore County, Md. Child's-carriage top.	236,027	Dec. 28	1203	332	18	1504
Hazleton, Milton W., Chicago, Ill., assignor to himself and E. S. T. Kennedy, New York, N. Y. Sectional boiler.	224,685	Feb. 17	828	235	17	370

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Hazelton, William V. (See Ladenberger and Hazelton.)						
Hazen, Daniel T., East Milan, Mich. Fence.	231,313	Aug. 17	831	233	18	395
Hazlewood, Greenville, Jr., J. Reagin, Bloomfield, Iowa, and W. S. Coleman, Salisbury, Mo. Name-tag.	223,226	Jan. 6	20	5	17	6
Heacock, Miles S. (See Morris and Heacock.)						
Headen, John S., and J. I. Spainhower, Pleasant Hill, Mo. Washing-machine.	225,127	Mar. 2	173	49	17	486
Heafer, Edgar M. (See Heafer, Napoleon B. and E. M.)						
Heafer, Edgar M., Bloomington, Ill. Flood-gate for tile-drains.	233,853	Nov. 2	33	8	18	992
Heafer, Napoleon B. and E. M., Bloomington, Ill. Kiln for burning brick, pottery, &c.	225,598	Mar. 16	725	214	17	603
Heaford, Edwin V., Covington, Ky. Combined sash-cord fastener and sash-lock.	228,349	June 1	215	61	17	1262
Healey, Charles. (See Keene, George A., assignor.)						
Healey, Joseph S., East Weymouth, assignor to S. Frost, Newton, Mass. Anti-rattler for thill-couplings.	223,731	Jan. 20	632	170	17	130
Heap, David P., Newport, R. I. Apparatus for making infusions.	226,611	Apr. 20	562	157	17	862
Heard, James M., St. Paul, Minn. Attachment of hair-springs to balance-staffs.	228,995	June 22	1041	283	17	1410
Hearn, Edwin R., assignor to P. Lorillard & Co., Jersey City, N. J. Machine for drying leaf-tobacco.	229,126	June 22	1177	{ 322 } { 323 }	{ 17 }	1431
Hearst, Alexander, Peoria, Ill. Corn-planter.	228,258	June 1	118	34	17	1245
Heastie, James. (See Cowburn, Thomas, assignor.)						
Heath, Charles F., West Brighton, N. Y. Dust-pan.	224,334	Feb. 10	422	120	17	292
Heath, Charles F., West New Brighton, N. Y. Oil-can.	225,825	Mar. 23	1006	289	17	658
Heath, Hubert S. (See Hancock and Heath.)						
Heath, Thomas T., et al. (See Fisher, William M., assignor.)						
Heaton, John W. (See Hitchiner and Heaton.)						
Hebbard, Henry H., Clifton, and I. A. Hebbard, Rochester, N. Y.; said I. A. Hebbard assignor to said H. H. Hebbard. Apple-parer.	229,251	June 29	1312	362	17	1458
Hebbard, Ira A. (See Hebbard, Henry H. and I. A.)						
Hebel, Jacob, Stewartson, Ill. Harness.	225,826	Mar. 23	1007	289	17	658
Heberling, John, assignor to Heberling Running Stitch Sewing Machine Company, Mount Pleasant, Ohio. Running-stitch sewing-machine.	227,249	May 4	189	55	17	1009
Heberling, John, assignor to Heberling Running Stitch Sewing Machine Company, Mount Pleasant, Ohio. Running-stitch sewing-machine.	227,525	May 11	504	145	17	1072
Heberling Running Stitch Sewing Machine Company. (See Heberling, John, assignor.)						
Hebert, Oliver, Oswego, Ill. Tongue-supporter for vehicles.	223,732	Jan. 20	633	170	17	130
Heck, Henry H., and D. Reed, Sullivan, Ind. Churn.	231,575	Aug. 24	1125	315	18	449
Heck, Peter E., Connersville, Ind. Gate.	232,181	Sept. 14	367	102	18	592
Heckel, George, Brooklyn, N. Y. Sled-propeller.	234,774	Nov. 23	1191	321	18	1207
Heckendorn, Henry C., assignor of one-half to W. H. Wilhelm, Reading, Pa. Lathe for turning ovals.	233,753	Oct. 26	1189	330	18	960
Heckert, William. (See Hoster, Theodore G., assignor.)						
Heckert, William, Brooklyn, assignor to National Bank Note Company, New York, N. Y. Paper-cutting machine.	227,356	May 11	320	93, 94	17	1041
Heckman, Napoleon J., Loughton, England. Treating paper for detective purposes.	225,282	Mar. 9	366	.....	17	530
Hedden, Potter, et al. (See Cole, George P., assignor.)						
Hedden, Richard S., and L. A. McCormick, Newark, N. J. Hat-ironing machine.	234,569	Nov. 16	922	247	18	1157
Hedderwick, Percy D., Glasgow, North Britain, assignor, by mesne assignment, to R. Hoe & Co., New York, N. Y. Printing-machine.	231,316	Aug. 17	833	{ 234 } { 235 }	{ 18 }	396
Hedge, Barnabas, Augusta, Me., and F. A. Cushman, Lebanon, N. H. Vacuum dredging-machine.	226,661	Apr. 20	621	173	17	871
Hedges, Daniel T., and G. M. Needham, Sioux City, Iowa. Device for protecting the banks of rivers.	225,522	Mar. 16	644	188	17	587
Hedges, Isaac A., St. Louis, Mo. Mill for grinding corn in shuck.	231,573	Aug. 24	1123	314	18	448
Hedges, Samuel, Wheeling, and L. B. Morgan, West Liberty, W. Va. Pivoted adjustable seat for harvesters, &c.	224,905	Feb. 24	1101	315	17	430
Hedrick, George T., assignor to himself and J. T. Bohon, Weaverton, Ky. Grain-bag nozzle and stopper.	225,237	Dec. 7	213	58	18	1316
Heebner, David S., et al. (See Heebner, Josiah D., assignor.)						
Heebner, David S., I. D., and W. D., Lansdale, Pa. Feed-cutter.	234,183	Nov. 9	439	{ 118 } { 119 }	{ 18 }	1067
Heebner, David S. and J. D.; said David S. Heebner assignor of two-thirds to I. D. and W. D. Heebner; and said J. D. Heebner assignor to I. D., W. D., and D. S. Heebner, Lansdale, Pa. Horse-power. (Reissue.)	9,488	Dec. 7	315	88	18	1334
Heebner, Isaac D. (See Heebner, David S., I. D., and W. D.)						
Heebner, Isaac D., et al. (See Heebner, David S. and J. D., assignors.) (Reissue.)						
Heebner, Isaac D., et al. (See Heebner, Josiah D., assignor.)						
Heebner, Josiah D. (See Heebner, David S. and J. D.) (Reissue.)						
Heebner, Josiah D., Nortonville, assignor of one-half interest to D. S., I. D., and W. D. } Heebner, Lansdale, Pa. Binding attachment for reapers and harvesters. .... }	227,774	May 18	796	{ 225 } { 226 }	{ 17 }	1128
Heebner, William D. (See Heebner, David S., I. D., and W. D.)						
Heebner, William D., et al. (See Heebner, David S. and J. D., assignors.) (Reissue.)						
Heebner, William D., et al. (See Heebner, Josiah D., assignor.)						
Heerlein, Robert. (See Bihn and Heerlein.)						
Heers, Henry C. W., Des Moines, assignor of one-half interest to J. Berg, Grinnell, Iowa. Self-dropping attachment for corn-planters.	224,826	Feb. 24	1011	286	17	415
Hees, Wilhelm. (See Wittig and Hees.)						
Heesen Brothers & Co. (See Heesen, John, assignor.)						
Heesen, John, assignor to Heesen Brothers & Co., Tecumseh, Mich. Hog-ringing tool.	226,915	Apr. 27	921	256	17	931
Hefner, John, Piper's Run, Pa. Car-coupling.	225,599	Mar. 16	727	214	17	603
Hefner, O. O. (See Carr, Thomas J., assignor.)						
Hegarty, John, New York, N. Y. Piston or plunger packing for fountains.	227,526	May 11	505	145	17	1072
Hegeman, W. A. Ogden, trustee. (See Montgomery, James, assignor.)						
Hegeman, William L. (See Fory and Hegeman.)						
Heginbotham, Joseph, Philadelphia, Pa. Head for circular-knitting machines.	235,238	Dec. 7	213	58	18	1316
Heick, William, assignor, by mesne assignment, to Thunder Powder Company, San Francisco, Cal. Explosive compound.	235,871	Dec. 28	1012	.....	18	1473
Heidle, Adam, Bryan, Ohio. Fanet-lock for beer-coolers.	228,069	May 25	1155	328	17	1196
Heikel, Otto, Jersey City, N. J., assignor to National Electric Light and Power Company, } New York, N. Y. Magneto-electric machine. .... }	235,433	Dec. 14	464	{ 131 } { 132 }	{ 18 }	1367
Heikes, Albert, York Sulphur Springs, Pa. Wagon-reach coupling.	224,531	Feb. 17	646	186	17	340
Heil, J. H., et al. (See Pawling, Joseph H., assignor.)						
Heilman, William, Evansville, Ind. Gearing for traction-engines.	225,827	Mar. 23	1007	289	17	658
Heilprin, Angelo, New York, N. Y. Music-leaf turner.	229,313	June 29	1393	{ 381 } { 382 }	{ 17 }	1469
Heimann, Hermann, Cologne, Germany. Composition for preventing incrustation of boilers.	235,633	Dec. 21	714	.....	18	1415

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Heimann, Julius, New York, and M. T. Wall, Brooklyn, N. Y. Hat and other head-covering.....	227,527	May 11	507	145	17	1072
Heimann, Julius, New York, and M. T. Wall, Brooklyn, N. Y. Hat or other head-covering.....	230,276	July 20	909	258	18	164
Heine, August. (See Huntley and Heine.)						
Heine, Hermann, Berlin, Prussia, assignor to A. Meier & Co., St. Louis, Mo. Sectional steam-generator.....	233,094	Oct. 12	371	102 103	18	806
Heinemann, Timothy, Covington, Ky. Safe. (Reissue).....	9,305	July 20	1040	294	18	186
Heinemann, Theodore W. (See Chaim, Adolph, assignor.)						
Heinemann, Theodore W., Chicago, Ill. Testicle-suspensory.....	230,702	Aug. 3	122	36	18	266
Heinisch, Gustav H. (See Simpson, Charles A. E., assignor.)						
Heintz, Emil, Auburn, N. Y. Carpet-stretcher.....	231,666	Aug. 31	1238	348	18	474
Heinze, Herman, Enreka, Mo. Fastening for mail-bags.....	231,574	Aug. 24	1124	315	18	448
Heinzerling, Christian, Biedenkopf, Germany. Tawing hides.....	231,797	Aug. 31	1396		18	498
Heisler, Charles, St. Louis, Mo. Combined house speaking and signaling apparatus.....	225,055	Mar. 2	96	26	17	472
Heisler, Charles, St. Louis, Mo. Electric alarm-bell.....	227,433	May 11	403	117	17	1054
Heist, George K., Winchester, Va. Commode.....	231,040	Aug. 10	515	145	18	337
Heist, George K., Winchester, Va. Chair and stool.....	231,576	Aug. 24	1126	315	18	449
Heiter, Simon, New York, N. Y. Umbrella and parasol.....	233,930	Nov. 2	116	32	18	1006
Heitner, John, New York, N. Y. Razor.....	229,127	June 22	1179	323	17	1431
Heitz, Jacob, Sr. (See Lendner, Augustus R., assignor.)						
Heitzelman, Peter, San Francisco, Cal. Fancet for sheet-metal vessels.....	234,710	Nov. 23	1114	300	18	1194
Helder, Philip C., and J. Pfender, Evansville, Ind. Roll for elbow-pipes.....	227,897	May 25	955	274	17	1165
Heller, Harry, Saline, Mich. Car-coupling.....	232,348	Sept. 21	577	159	18	634
Hellman, Louis, Chicago, Ill. Combined cane-top and match-safe.....	233,676	Oct. 26	1105	307	18	946
Hellyer, Samuel S., London, England, assignor to H. C. Meyer & Co., New York, N. Y. Water-closet.....	234,570	Nov. 16	923	248	18	1157
Helm, J. Henry, Allegheny, Pa. Die for welding chain-links.....	223,345	Jan. 6	160	42	17	29
Helm, J. Henry, Allegheny, Pa. Fence-post.....	231,667	Aug. 31	1239	349	18	474
Helm, Charles H., Poughkeepsie, N. Y., assignor of one-half to G. H. P. Flagg, Boston, Mass. Sole-edge trimmer for boots and shoes.....	234,869	Nov. 30	1312	354	18	1233
Héme, Claude, Bay City, Mich. Pipe-clamp for oil-wells, &c.....	224,532	Feb. 17	647	186	17	340
Hemenway, Collier V., F. W. and W. H. Bennett, and T. Kirk, Wellington, Ohio. Brick-machine.....	225,283	Mar. 9	367	107 108	17	531
Hemenway, Hanev, Ridott, assignor to A. R. Garver, Rockford, Ill. Wire-stretcher.....	228,350	June 1	216	61	17	1262
Hemme, William, Michigan Valley, Kans. Sulky-plow.....	235,767	Dec. 21	866	242	18	1440
Hemp, James, assignor of one-eighth interest to G. B. Rusmissele, Middlebrook, Va. Nut-lock.....	227,775	May 18	800	226	17	1128
Hempel, Henry A., assignor of one-half interest to J. A. Dingens, Buffalo, N. Y. Printer's locking-up device.....	227,004	Apr. 27	1027	284	17	948
Hemphill, James, Pittsburg, Pa. Steel blooming and slabbing mill.....	232,713	Sept. 28	1003	276	18	712
Hempstead, Beall, Little Rock, Ark., assignor of one-half interest to J. P. Lovell, Weymouth, Mass. Ball-trap.....	227,776	May 18	800	226	17	1128
Hendee, Stephen A., et al. (See Baldwin, Cadwell A., assignor.)						
Henderson, Benjamin I., Salem, Mass. Direct-acting engine.....	235,084	Dec. 7	26	8	18	1285
Henderson, Fulton, Toledo, Ohio, assignor of one-third interest to D. Covert. Incrustation-preventive.....	231,909	Sept. 7	38		18	530
Henderson, Henry A., Lynn, assignor to F. F. Raymond, 2d, trustee, Newton, Mass. Heel-trimming machine.....	224,533	Feb. 17	648	186	17	340
Henderson, Henry H., New Glasgow, Nova Scotia. Store-counter.....	224,429	Feb. 10	526	152	17	309
Henderson, James, Cambusbarrow, near Stirling, North Britain. Label-holder.....	228,757	June 15	743	205	17	1361
Henderson, Jeremiah H. (See Henderson and Notson.)						
Henderson, John and J. M., and J. Notson, Leon, Iowa. Motor for operating churns.....	224,430	Feb. 10	527	152	17	309
Henderson, John F., Bowling Green, Ky. Calendar for clocks.....	227,250	May 4	191	55	17	1009
Henderson, John F., Franklin, Ky. Coffee-pot.....	227,251	May 4	191	56	17	1009
Henderson, Joseph C., Troy, N. Y. Chimney-ventilator.....	232,642	Sept. 28	922	254	18	699
Henderson, Leonard. (See White and Henderson.)						
Henderson, William H., Greenwood, Ind. Baking device.....	229,314	June 29	1395	382	17	1469
Henderson, William M., Philadelphia, Pa. Car-brake.....	232,030	Sept. 7	187	51	18	555
Hendrick, Eli E., Carbondale, Pa. Process and tool for uniting sheets of foil.....	234,184	Nov. 9	440	119	18	1067
Hendrick, Eli E., Carbondale, Pa. Storage-tank.....	234,185	Nov. 9	442	119	18	1068
Hendrick, Eli E., Carbondale, Pa. Oil-tank.....	234,186	Nov. 9	442	120	18	1068
Hendrick, George W., assignor to E. N. Welch Manufacturing Company, Forestville, Conn. Striking mechanism for clocks.....	228,895	June 15	909	248	17	1383
Hendricks, Adam C., Duffield Station, assignor to himself and H. S. Shepherd, Shepherdstown, W. Va. Fertilizer attachment for seed-drills.....	224,184	Feb. 3	245	71	17	244
Hendricks, Adam C., Duffield Station, W. Va. Fertilizer attachment for seed-drills.....	230,278	July 20	910	259	18	164
Hendrickson, Hubbard, New York, N. Y. Brush.....	230,277	July 20	910	258	18	164
Hendrickson, Justus J., and G. W. Berstler, Norristown, Pa. Middlings-purifier.....	228,070	May 25	1155	329	17	1196
Hendry, Hugh, Newark, N. J. Self-acting spinning-mule.....	225,984	Mar. 30	1207	342	17	704
Hendy, Joshua. (See Cochrane, Thomas A., assignor.) (Reissue.)						
Hendy, Joshua, San Francisco, Cal. Ore-feeder.....	235,872	Dec. 28	1013	280	18	1473
Henington, Edwin L., Santaren, Para, Brazil. Coffee pulper and separator.....	232,714	Sept. 28	1004	277	18	712
Henius, Max W., New York, N. Y. Corset.....	223,346	Jan. 6	161	42	17	29
Henkle, Leonard, Rochester, N. Y. Lantern.....	225,983	Mar. 30	1205	342	17	704
Henkle, Leonard, Rochester, N. Y. Lantern.....	226,852	Apr. 27	844	234	17	919
Henley, Albert, Lawrence, Kans. Machine for barbing fence-wire.....	232,819	Oct. 5	27	8	18	743
Henley, Albert, Lawrence, Kans. Device for forming fence-barbs.....	234,870	Nov. 30	1314	354	18	1234
Henley, Henry. (See Clippinger, Isaiah A., assignor.)						
Henley, James H., Leadville, Colo. Car-coupling.....	225,129	Mar. 2	175	49	17	486
Henley, Micajah C., Richmond, Ind. Roller-skate.....	234,404	Nov. 16	726	196	18	1124
Henn, Alfred S., New Haven, Conn. Snap-hook.....	229,885	July 13	443	122	18	82
Hennessey, James J., assignor of one-half interest to G. F. Fitzmyer, Buffalo, N. Y. Lumber-hoist.....	223,227	Jan. 6	21	5	17	6
Henning, Abel, Philadelphia, Pa, assignor, by mesne assignments, to United States Automatic Gas Machine Company. Gas-machine.....	232,715	Sept. 28	1006	277	18	713
Henning, George C., Washington, D. C. Shirt.....	228,195	June 1	39	13	17	1233
Henningsen, Jens M., Copenhagen, Denmark, assignor to E. Wenderoth, Bremen, Germany. Apparatus for coloring tobacco-leaves.....	234,474	Nov. 16	807	216	18	1138
Hennion, John P., et al. (See Dorn, August, assignor.)						
Henriksen, Bernhard E., San Francisco, Cal. Pneumatic safety-clutch.....	223,287	Jan. 6	97	24	17	19
Henriksen, Bernhard E., San Francisco, Cal. Automatic safety-clutch.....	229,606	July 6	114	30	18	25
Henriksen, Hans P., Copenhagen, Denmark, assignor to himself and L. Hansen, Brooklyn, N. Y. Machine for sewing gloves. (Reissue).....	9,039	Jan. 13	508	137 138	17	100
Henry, B. Tyler, New Haven, Conn. Check-bit.....	229,886	July 13	444	122	18	83



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Henry, D. Farrand, <i>et al.</i> (See Barker, Philander M., assignor.)						
Henry, Frank, Newport, Ky. Egg-beater.....	232,125	Sept. 14	296	84	18	581
Henry, Jacob A., Peabody, Kans. Farm-gate.....	228,896	June 15	911	249	17	1383
Henry, James. (See McLean and Henry.)						
Henry, Jane, and J. R. Smith, Chicago, Ill. Urinal for invalids.....	231,487	Aug. 24	1023	287	18	434
Henry, John H., Hinsdale, N. Y. Cylinder-machine for making paper.....	232,031	Sept. 7	189	51	18	555
Henry, John J., assignor of one-half interest to F. K. Tyler, Baltimore, Md. Soldering-iron..	223,849	Jan. 27	784	209	17	164
Henry, Thomas C., Shelby County, assignor of one-half interest to A. L. Cummins, Memphis, Tenn. Nut-lock.....	225,128	Mar. 2	174	49	17	486
Henry, William, New York, N. Y. Vehicle-spring.....	224,906	Feb. 24	1102	315	17	430
Henry, William T., Baltimore, Md. Machine for inserting rubber in the peripheries of drive-wheels.....	227,106	May 4	19	6	17	981
Henry, William V., Sacramento, Cal. Pumping apparatus.....	227,528	May 11	507	146	17	1072
Hense, Charles, Washington, D. C. Laying concrete pavements.....	227,898	May 25	957	274	17	1165
Hensley, William, Wamego, Kans. Undershot water-wheel.....	231,041	Aug. 10	516	145	18	337
Henszey, William P., <i>et al.</i> (See Longstreth, Edward, assignor.) (Reissue.)						
Henszey, William P., Philadelphia, Pa. Locomotive-engine.....	227,778	May 18	802	227	17	1129
Henszey, William P., Philadelphia, Pa. Locomotive-boiler.....	232,032	Sept. 7	191	51	18	555
Henszey, William P., Philadelphia, Pa. Narrow-gage locomotive.....	234,279	Nov. 9	557	152	18	1087
Henwood, Horace E., Hamilton, Ontario, Canada. Car-coupling.....	223,733	Jan. 20	633	170	17	130
Hepburn, Sewell S., Fairlee, Md. Thill-coupling.....	232,966	Oct. 5	205	55	18	771
Hepburn, Thomas, Hopkins, Mo. Horse-collar.....	228,351	June 1	216	61	17	1262
Hepworth, Samuel S., <i>et al.</i> (See Müller, Teile H., assignor.)						
Hepworth, Samuel S., Yonkers, N. Y. Centrifugal machine.....	225,600	Mar. 16	728	215	17	603
Herancourt, A. Louis J. (See Zimmermann, Philip, assignor.)						
Herbert, Edward, and O. T. Dougherty, assignors of one-half interest to P. Melchisedeck, Minneapolis, Minn. Permutation-lock.....	231,166	Aug. 17	668	188	18	369
Herbert, George E. W., Cohocton, N. Y. Animal-poke.....	234,871	Nov. 30	1315	354	18	1234
Herbert, Gilbert I., New York, N. Y. Portable shelter.....	225,372	Mar. 9	465	136	17	547
Herbert, John B., and C. Layton, Old Bridge, N. Y. Station-indicator.....	225,130	Mar. 2	175	49	17	486
Herbold, Philip, Jr., Galion, Ohio. Reclining-chair.....	235,239	Dec. 7	214	58	18	1316
Herschelrode, Henry C., assignor to A. C. Marshall and H. C. Graves, Dayton, Ohio. Horse-rake.....	225,602	Mar. 16	732	216	17	604
Herdie, Peter, Williamsport, Pa. Running-gear for vehicles.....	226,748	Apr. 20	711	198	17	886
Herdie, Peter, Williamsport, Pa. Fare-box.....	228,530	June 8	443	121	17	1306
Hergenröder, Christian W., Baltimore, Md. Surveying and plotting instrument.....	231,799	Aug. 31	1397	394 395	18	499
Herkner, Henry F. (See Chase, Richard F. M., assignor.)						
Herlt, Hermann, New York, N. Y. Curtain-fixture. (Reissue.).....	9,184	May 4	287	84	17	1025
Herman, John, New York, N. Y. Suspenders.....	231,798	Aug. 31	1396	394	18	498
Herman, John B., Blair, Nebr. Wagon-axle.....	227,777	May 18	601	226	17	1129
Hermann, Christopher, Worcester, Mass. Letter-box bell.....	233,617	Oct. 26	1036	288	18	934
Hermann, Max, Troy, N. Y. Machine for folding collars and cuffs.....	234,571	Nov. 16	926	248	18	1157
Herndon, George P., West Point, Miss. Alarm letter-box.....	227,005	Apr. 27	1028	285	17	948
Herndon, George P., Rome, Ga. Hand-power for sewing-machines.....	225,131	Mar. 2	177	50	17	486
Herndon, George P., West Point, Miss., assignor of one-half interest to A. B. Hurt, Washington, D. C. Electrical indicator for letter-boxes.....	228,071	May 25	1157	329	17	1197
Herold, John G., Moberly, Mo. Nut-lock.....	234,127	Nov. 9	373	102	18	1055
Herrenschmidt, Henri, assignor of one-half interest to J. White and W. G. Lempriere, Melbourne, Victoria. Ore-roasting furnace.....	223,850	Jan. 27	785	209	17	165
Herrick, George W., C. W. Wipfler, and T. H. Roberts, assignors to Michigan Stove Company, Detroit, Mich. Stove-urn.....	230,186	July 20	797	225	18	147
Herrick, Lizzie, Iowa City, Iowa. Doll-support.....	232,403	Sept. 21	645	178	18	645
Herring, Frank O., <i>et al.</i> (See Eichbaum, Henry, assignor.)						
Herring, James. (See Carpenter and Herring.)						
Herring, Nathan W., Clara, Pa. Hay-press.....	224,907	Feb. 24	1103	315	17	430
Herrmann, Henry. (See Tocci, Felice, assignor.)						
Herrmann, Jonas, Columbus, Ohio. Window-cornice.....	236,028	Dec. 28	1203	332	18	1504
Herrmann, Martin. (See Kisinger, William S., assignor.)						
Herrmann, William, Cotton Plant, Mo. Cotton-cleaner. (Reissue.).....	9,349	Aug. 24	1196	335	18	460
Herschel, William D., Philadelphia, assignor to J. O. Colladay, Bryn Mawr, Pa. Scroll-sawing machine.....	233,752	Oct. 26	1188	330	18	960
Hersey, Charles H., assignor to C. H. and F. C. Hersey, Boston, Mass. Sugar-molding machine.....	225,601	Mar. 16	730	215 216	17	603
Hersey, Francis C., <i>et al.</i> (See Hersey, Charles H., assignor.)						
Hershey, Benjamin. (See Dudley and Hershey.)						
Hershey, Benjamin, assignor of two-thirds interest to R. Dudley and F. M. Crane, Erie, Pa. Clothes-wringer.....	229,129	June 22	1182	324	17	1431
Herskell, Robert B., assignor to Simpson, Hall, Miller & Co., Wallingford, Conn. Holder for electroplating.....	234,775	Nov. 23	1191	321	18	1207
Hertford, Joseph R., Washington, D. C. Molded article from paper-pulp.....	227,357	May 11	322	94	17	1042
Hertle, John C., Brooklyn, N. Y., assignor to Van Gelder & Co. Flanging-machine for sweat-bands.....	231,668	Aug. 31	1240	349	18	474
Herzberg, Moritz, assignor to himself, M. and H. O'Neil, New York, N. Y. Metal stamping, punching, and shearing machine.....	226,612	Apr. 20	563	157	17	863
Herzberg, Samuel, Pontiac, Ill. Ticket-holder.....	224,686	Feb. 17	829	235	17	371
Herzog, August, New York, N. Y. Draftsman's triangle.....	233,618	Oct. 26	1037	288	18	934
Hess, Daniel, Newton, N. Y. Violin case or box.....	232,182	Sept. 14	368	102	18	592
Hess, John M., assignor of one-half to C. H. Mintzer, Philadelphia, Pa. Metallic roofing.....	231,317	Aug. 17	837	235	18	396
Hess, John M., assignor of one-half to C. H. Mintzer, Philadelphia, Pa. Eaves-box.....	233,677	Oct. 26	1105	307	18	946
Hess, Moritz. (See Espig, Wilhelm, assignor.)						
Hess, S. Milton. (See Witmer, John M., assignor.)						
Hesse, Frederick C., assignor to T. G. Randall and M. Strausky, Cincinnati, Ohio. Domestic sifter.....	231,718	Aug. 31	1298	365	18	483
Hesse, Joseph, San Francisco, Cal. Carpet-sewing machine.....	235,085	Dec. 7	28	9	18	1285
Hessels, Anthony, New York, N. Y. Machine for polishing diamonds.....	231,577	Aug. 24	1127	315	18	449
Hessels, Anthony, New York, N. Y. Gem-setting.....	233,678	Oct. 26	1106	303	18	946
Hessin, William. (See Damant, William E., assignor.) (Reissue.)						
Hester, Thomas R. (See Crowe and Hester.)						
Heston, William, Ravenna, and C. Purdy, Cleveland, Ohio; said Purdy assignor to said Heston. Grain-cutting machine.....	227,626	May 18	623	179	17	1102
Heston, William, Alliance, assignor to Quaker Mill Company, Ravenna, Ohio. Oatmeal-machine.....	229,531	June 8	444	121	17	1306



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Hetherington, John E. (See Graydon, Thomas W., assignor.)						
Henett, Francis M., Jug Tavern, Ga., assignor of one-half interest to W. R. McNinch, Chester, S. C. Reversible pole and shaft for vehicles.	232,967	Oct. 5	206	55	18	772
Heyenoid Manufacturing Company. (See Gerner, Henry, assignor.)						
Hewes, Alfred, Brooklyn, N. Y. Portable music-stand.	224,687	Feb. 17	830	235	17	371
Hewes, Annette J. (See Howes, Benjamin F., assignor.)						
Hewes, Benjamin F., assignor to A. J. Howes, Crete, Ill. Milk-cooler.	233,506	Oct. 19	884	244	18	898
Hewitson, John, assignor to Reed & Barton, Taunton, Mass. Tool for ornamenting surfaces of metals.	225,828	Mar. 23	1008	289	17	658
Hewitson, John, and E. Tolman, assignors to Reed & Barton, Taunton, Mass. Machine for ornamenting metal surfaces.	225,829	Mar. 23	1008	290	17	658
Hewitt, Abram S., et al. (See Faber du Faur, Adolph, assignor.)						
Hewitt, Benjamin, Birmingham, England. Plumber-block.	226,747	Apr. 20	710	197	17	886
Hewitt, Charles, and J. Withington, Chambersburg, assignors to Trenton Iron Company, Trenton, N. J. Machine for coiling wire and rods.	235,359	Dec. 14	371	102	18	1351
Hewitt, Henry P., and J. E. Bennett, Ledyard, Conn. Clothes-pounder.	223,508	Jan. 13	371	99	17	78
Hewitt, Samuel A., assignor to L. White, Buffalo, N. Y. Roller for welding plane-iron stock.	233,754	Oct. 26	1191	330	18	961
Hewitt, S. Myron. (See Brigham, Hewitt, and Prusba.)						
Hewitt, William, assignor to Trenton Iron Company, Trenton, N. J. Slitting old rails.	224,827	Feb. 24	1013	287	17	415
Hewitt, William, and J. Withington, Chambersburg, assignors to Trenton Iron Company, Trenton, N. J. Furnace for annealing wire, &c.	226,853	Apr. 27	846	234 235	17	919
Heyer, Frederick, Richmond, Va. Steam-engine governor.	236,029	Dec. 28	1204	333	18	1504
Heyer, Ludwig, Berlin, Prussia, Germany. Treating waste vulcanized caoutchouc.	226,070	Mar. 30	1307		17	719
Heymann, Alfred T., Hamburg, Germany. Extension-table.	229,128	June 22	1180	323	17	1431
Heyser, Walter J., et al. (See Junkin, James H., assignor.)						
Heyser, Winfield C., et al. (See Junkin, James H., assignor.)						
Heysinger, Isaac W., Philadelphia, Pa. Device for filing and binding papers.	226,402	Apr. 13	293	85	17	809
Heysinger, Isaac W., Philadelphia, Pa. Glazier's tool.	231,225	Aug. 17	743	208	18	380
Heywood Brothers & Co. (See Heywood, Levi, assignor.)						
Heywood, Charles L., and R. Beoklen, assignors to Carburetted Air Gas Company, Boston, Mass. Carbureting apparatus.	224,592	Feb. 17	727	206	17	353
Heywood, Levi, assignor to Heywood Brothers & Co., Gardner, Mass. Chair.	232,496	Sept. 21	757	209	18	664
Hiatt, Leslie P., Peru, Iowa. Wrench.	233,507	Oct. 19	885	244	18	899
Hibbard, Frederick M., Muncie, Ind. Head-rest.	231,578	Aug. 24	1129	316	18	449
Hibbard, Thomas. (See Newton and Hibbard.)						
Hibbert, George. (See Cooke and Hibbert.)						
Hibbert, Thomas, Cochran, Ind. Grain-car door.	230,012	July 13	584	162	18	104
Hibbert, Thomas, Cochran, Ind. Railway continuous draw-bar.	230,549	July 27	1257	354	18	223
Hickcox, George A., Brooklyn, assignor to Stephens Patent Vise Company, New York, N. Y. Vise.	232,892	Oct. 5	118	31	18	757
Hickey, George J., assignor of one-half interest to B. G. Button, Waterloo, Iowa. Gas-regulating burner.	229,409	June 29	1506	415	17	1484
Hickey, James. (See Kelso, James P., assignor.)						
Hickman, Elijah, Red Bluff, Cal. Car-coupling.	232,126	Sept. 14	297	84	18	581
Hickman, Francis, Reading, Pa., assignor to C. Parker Company, Meriden, Conn. Coffee-mill.	230,279	July 20	911	259	18	164
Hickman, Henry, Omaha, Nebr. Collar-button and necktie-fastener.	226,071	Mar. 30	1308	368	17	720
Hickman, William B., assignor to himself and W. Price, Sterling, Kans. Device for welding plow-irons.	227,006	Apr. 27	1029	285	17	948
Hickok, Alonzo D., Columbus City, Iowa. Vehicle-spring.	229,609	July 6	116	31	18	26
Hickok, William H., East Troy, Pa. Ditching-machine.	235,768	Dec. 21	867	242	18	1440
Hickok, William O., A. Cooper, and G. W. Brown, Harrisburg, Pa.; said Cooper and Brown assignors to said Hickok. Paper-ruling machine.	223,912	Jan. 27	863	229 230	17	177
Hickok, William O., Harrisburg, Pa. Pen-clamp bar for ruling-machines.	228,072	May 25	1157	329	17	1197
Hickox, Francis Z., assignor to himself, C. H. Bender, and M. J. Dwyer, Utica, N. Y. Car-coupling.	223,509	Jan. 13	372	99	17	78
Hicks, Abram V. S., Rockville Centre, N. Y. Combined hammock and supporting-frame.	223,588	Jan. 13	464	126	17	93
Hicks, Charles R., et al. (See Shaw, Charles H., assignor.)						
Hicks, Josephine M., Boston, Mass. Cistern-spout and trap therefor.	232,820	Oct. 5	30	8	18	743
Hicks, J. W. (See Sanford, Albert, assignor.)						
Hicks, Milton, Sr., et al. (See Haring, Cornelius A., assignor.)						
Hicks, Milton W., et al. (See Haring, Cornelius A., assignor.)						
Hicks, Oliver H., Chicago, Ill. Paper bucket.	231,910	Sept. 7	38	8, 9	18	530
Hicks, Rebecca M., Minneapolis, Minn. Sewing-machine receptacle and extension-table leaf.	232,127	Sept. 14	298	84	18	581
Hicks, Thomas, Jr., Gravesend, N. Y. Milliner's steamer and presser.	232,716	Sept. 28	1008	277	18	713
Hicks, William C., Summit, N. J. Car-window.	224,778	Feb. 24	956	272	17	406
Hicks, William H. (See Morschhauser, Joseph, assignor.) (Reissue.)						
Hidden, Oliver M., et al. (See Gonne, William H., assignor.)						
Hiekisch, Paul, Decatur, Ill. Vapor-burner.	231,224	Aug. 17	743	208	18	380
Higbee, Charles W. (See Bortree, Moses K., assignor.)						
Higbee, Miles, Baxley, Ind. Portable fence.	226,403	Apr. 13	295	85	17	809
Higgin, Henry, Newport, Ky. Vehicle-bow trimming.	234,574	Nov. 16	929	249	18	1158
Higgin, Thomas, Liverpool, England. Manufacturing fine salt.	224,014	Feb. 3	49	15	17	211
Higginbotham, Kimp H., Waterford, Miss. Water-wheel.	225,373	Mar. 9	466	136	17	547
Higginbottom, James, and E. Hutchinson, Liverpool, Great Britain. Mill for grinding grain, middlings, &c.	225,374	Mar. 9	467	136	17	547
Higgins, Albert J., Standish, Me. Wrench.	228,634	June 8	574	152	17	1325
Higgins, Crafts W., et al. (See Fleming, Henry W., assignor.)						
Higgins, William E. (See Best and Higgins.)						
Higham, Charles. (See Brigham and Higham.)						
Highbarger, John L., Sharpsburg, Md. Book-holder.	223,589	Jan. 13	465	126	17	94
Hight, Cornelius R., Geneva, Ill., assignor to S. A. Eaton. Wheelbarrow. (Reissue.)	9,342	Aug. 17	910	256	18	408
Higley, Aaron, assignor of one-half interest to F. Higley, Cleveland, Ohio. Journal-box.	227,627	May 18	624	179	17	1102
Higley, Aaron, Cleveland, Ohio, assignor to Higley Car Journal Company. Car-axle box. (Reissue.)	9,295	July 13	692	193	18	122
Higley Car Journal Company. (See Higley, Aaron, assignor.)						
Higley, Frank. (See Higley, Aaron, assignor.)						
Hildebrand, Charles, assignor of one-half to Arms, Bell & Co., Youngstown, Ohio. Feeding device for punching-machines.	233,757	Oct. 26	1194	331 332	18	961
Hildreth, Samuel P., assignor of one-half interest to D. W. Pond, Worcester, Mass. Metal-planing machine.	224,534	Feb. 17	650	186	17	340
Hildrup, William T., and A. Tschop, Harrisburg, Pa. Guano-sower and seeder combined.	231,669	Aug. 31	1242	349	18	474

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Hildrup, W. T. (See Forbes, John, assignor.)						
Hile, John W., Leavenworth, Kans. Compensating clock-pendulum.....	231,800	Aug. 31	1401	395	18	499
Hill, Albert T. (See Hill, Truman A. and A. T.)						
Hill, Andrew L., assignor to C. H. Brown, Decatur, Ill. Metallic tenon for blind-slats.....	224,908	Feb. 24	1105	316	17	430
Hill, Benjamin B. (See Sawyer, Willard W., assignor.)						
Hill, Benjamin B., Springfield, Mass. Copying-press.....	227,976	May 25	1052	299	17	1180
Hill, Benjamin B., Springfield, Mass. Hand-stamp.....	232,349	Sept. 21	578	159	18	634
Hill, Britton A. (See Lochner, Auguste, assignor.)						
Hill, Charles G., assignor of one-half interest to G. Feelemyer, Arlington, Md. Thill-coupling.....	228,815	June 15	821	224	17	1371
Hill, Charles G., Arlington, Md. Supplemental horseshoe.....	229,607	July 6	115	31	18	26
Hill, Charles G., Arlington, Md. Supplemental horseshoe.....	229,608	July 6	115	31	18	26
Hill, Christopher, Poplar, England. Grate for boiler-furnaces.....	224,688	Feb. 17	831	236	17	371
Hill, Ebenezer, South Norwalk, Conn. Engine for compressing air.....	229,821	July 13	371	102	18	71
Hill, Edward K., E. F. Tolman, and A. H. Howland, Worcester, Mass. Railway-velocipede.....	229,252	June 29	1315	362	17	1459
Hill, Edwin A., Reading, and W. S. Hill, Hyde Park, Mass.; said W. S. Hill assignor to said Edwin A. Hill. Metallic hair-brush.....	233,508	Oct. 10	885	245	18	899
Hill, Frank A. (See Price, Jacob, assignor.)						
Hill, George J., assignor to himself and W. S. Owens, Buffalo, N. Y. Cracker-machine cutter.....	230,480	July 27	1183	333	18	215
Hill, Henry, Freedom, Pa. Hand seed-sower.....	224,909	Feb. 24	1105	316	17	431
Hill, Henry, Chester Cross Roads, Ohio. Fence.....	229,315	June 29	1395	382	17	1469
Hill, James, Wilkesbarre, Pa. Bag-tie.....	225,830	Mar. 23	1009	290	17	659
Hill, James, Wilkesbarre, Pa. Step-ladder.....	225,831	Mar. 23	1010	290	17	659
Hill, James J., St. Paul, Minn. Dumping-car.....	227,434	May 11	404	118	17	1054
Hill, John, Columbus, Ga. Feed-indicator for cotton-openers.....	224,185	Feb. 3	246	71	17	244
Hill, John, Columbus, Ga. Fire-extinguisher.....	224,431	Feb. 10	528	152	17	309
Hill, John, Columbus, Ga. Mechanical movement.....	226,751	Apr. 20	715	199	17	886
Hill, John, Columbus, Ga. Lathe-dog.....	229,131	June 22	1184	324	17	1432
Hill, John W., Cincinnati, Ohio. Grain-meter.....	227,689	May 18	699	198	17	1113
Hill, John W., Cincinnati, Ohio. Grain-meter. (Reissue.).....	9,213	May 25	1256	356	17	1213
Hill, Joseph. (See Hanson, Joseph, assignor.)						
Hill, Joseph, Williamsport, Pa. Car-starter.....	223,347	Jan. 6	162	42	17	29
Hill, Joseph G., Newark, N. J. Life-preserver, buoy, and boat.....	227,779	May 18	803	227	17	1129
Hill, Lucian, North Brookfield, assignor to T. C. Bates and D. H. Fanning, Worcester, Mass. Corset-steel fastening.....	225,375	Mar. 9	468	137	17	548
Hill, Lysander, et al. (See Darrell, Armistead M., assignor.) (Reissue.)						
Hill, Martin V. B., assignor to Winchester Repeating Arms Company, New Haven, Conn. Machine for feeding cartridge-shells.....	233,095	Oct. 12	374	103	18	806
Hill, Milton B., Moline, Ill. Hose-coupling.....	228,196	June 1	40	13	17	1233
Hill, Richard T., St. Louis, Mo. Concentrated extract of tobacco.....	229,130	June 22	1183		17	1431
Hill, Samuel Greensborough, Vt. Milk-cooler.....	227,007	Apr. 27	1030	285	17	948
Hill, Truman A. and A. T., Mount Morris, N. Y. Fertilizer-distributor.....	231,801	Aug. 31	1402	395	18	499
Hill, Wade H. (See Rheutan, Abram A., assignor.)						
Hill, Walter N., trustee. (See Converse, George A., assignor.)						
Hill, Walter N., trustee. (See Maynard, Washburn, assignor.)						
Hill, Warren, Boston, Mass. Ticket-punch.....	230,129	July 20	732	205	18	137
Hill, Warren S. (See Hill, Edwin A. and W. S.)						
Hill, Warren S. (See Pinkham, Tirrell, and Hill.)						
Hill, Wilber F., and T. H. Hulbert, North Manchester, Conn. Expansion-pulley.....	227,358	May 11	323	94	17	1042
Hill, William E., assignor to himself and A. B. De Long, Big Rapids, Mich. Machine for rolling and turning logs.....	233,755	Oct. 26	1192	331	18	961
Hillard, James P., Fall River, Mass. Valve.....	234,573	Nov. 16	928	249	18	1158
Hillard, James P., Fall River, assignor to Whitehead & Atherton Machine Company, Lowell, Mass. Combined elevator and carrier.....	229,703	July 6	219	60	18	40
Hillard, Jonathan I., et al. (See Cutter, William P., assignor.)						
Hille, Paul, assignor of one-half interest to L. C. Hauenstein, Union, N. J. Machine for cleaning and polishing boots and shoes.....	228,073	May 25	1158	329 330	17	1197
Hilliard, Heddle. (See Knight and Hilliard.)						
Hillick, William P., Fulton, N. Y. Winding-arbor for stem-winding watches.....	225,220	Mar. 9	282	81	17	518
Hilpert, August, Hoboken, N. J. Inlaying sheets of card or leather board or like material..	230,776	Aug. 3	205	59	18	280
Hilpert, Gideon C., Hill, N. H. Eyeglasses.....	233,756	Oct. 26	1193	331	18	961
Hiltzheimer, Thomas M., Jr., et al. (See Bowers, Marcus M., assignor.) (Reissue.)						
Himes, Richard, Elizaville, Ky. Bee-hive.....	226,613	Apr. 20	564	157	17	863
Himpler, Francis G., Hoboken, N. J. Wooden partition.....	223,734	Jan. 20	634	171	17	130
Hinchman, John C. (See Stevens and Hinchman.) (Reissue.)						
Hinckley, Spiers & Hayes. (See Ransom, Hiram M., assignor.)						
Hincks, Enoch P., Bridgeport, Conn. Folding-top carriage.....	235,528	Dec. 14	583	166	18	1386
Hinderliter, Isaac N., Cranberry township, Venango county, Pa. Belt-coupling.....	234,776	Nov. 23	1192	322	18	1207
Hinds, Charles H., New York, N. Y. Electric lighting attachment for gas-burners.....	235,769	Dec. 21	868	243	18	1441
Hinds, Frank. (See Parkinson, John H., assignor.)						
Hines, Burgess A., et al. (See Witsil, George E., assignor.)						
Hines, John W. (See Slaughter, Joel C., assignor.)						
Hinesly, Linzy, Athens, Ga. Cultivator and seeder.....	232,183	Sept. 14	369	102	18	593
Hinkle, George W., Mendon, Mich. Holdback for vehicles.....	225,603	Mar. 16	733	217	17	604
Hinkle, George W., Mendon, Mich. Check-hook for harness.....	227,435	May 11	405	118	17	1054
Hinkle, Philip, San Francisco, Cal. Safety attachment for elevator-cages.....	232,608	Sept. 28	884	244	18	692
Hinks, James and J., Birmingham, England. Mechanism for lighting lamps.....	233,855	Nov. 2	36	9	18	993
Hinks, Joseph. (See Hinks, James and J.)						
Hinsdale, William R., Garden City, N. Y. Water-heater.....	223,911	Jan. 27	862	229	17	177
Hinsley, Benjamin, Philadelphia, Pa. Differential-pulley hoisting apparatus.....	233,246	Oct. 12	553	153	18	837
Hinton, George. (See Needham and Hinton.)						
Hinton, James, Leicester, England, assignor to Lloyd, Supplee & Walton, Philadelphia, Pa. Curtain-fixture.....	230,416	July 27	1103	310	18	202
Hirvest, Robert, New York, N. Y. Ore-smelting furnace.....	233,854	Nov. 2	34	9	18	992
Hipkins, Stephen, Jr., Martin's Ferry, Ohio. Glass-mold.....	224,433	Feb. 10	530	153	17	310
Hipwell, George, assignor of one-half interest to Mason & Co., Des Moines, Iowa. Blank for stove-pipes.....	229,532	July 6	30	8	18	13
Hirsch, Christian J. B., Zumbrota, Minn. Pipe-stem.....	226,750	Apr. 20	714	199	17	886
Hirsch, Michael C. (See Shaw, Elias J., assignor.)						
Hirschbeck, Michael, Solnhofen, Bavaria, Germany. Machine for grinding and polishing stone.....	231,318	Aug. 17	837	235 236	18	396
Hirshheimer, Albert. (See Ryer, William H., assignor.)						
Hirst, Charles S., Philadelphia, Pa. Safety pendant for watches.....	235,529	Dec. 14	584	167	18	1387

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Hirt, Wilhelm, Pittsburg, Pa., assignor to himself and Cunninghams & Co. Glass-maker's crane.....	223,348	Jan. 6	163	42	17	29
Hirt, Wilhelm, assignor of one-half to Cunninghams & Co., Pittsburg, Pa. Glass-maker's crane.....	234,777	Nov. 23	1193	322	18	1207
Hirth, Joseph, St. Louis, Mo. Head-light.....	227,628	May 18	625	179	17	1102
Hisley, John P., Syracuse, N. Y. Hame.....	230,939	Aug. 10	403	117	18	320
Histed, Thaddeus C., assignor of one-half to A. W. Callen, Junction City, Kans. Hoisting apparatus for mining-shafts.....	235,681	Dec. 21	763	217	18	1423
Hitchcock, Helen M., <i>et al.</i> (See Barlow, Elisha T., assignor.)						
Hitchcock, Jonathan, St. Paul, Minn., assignor to himself and D. M. White, Hudson, Wis. Sand-band for vehicles.....	234,572	Nov. 16	927	248	18	1157
Hitchcock, Porter A., and C. E. Wakeman, Pontiac, Mich. Device for converting motion.....	225,376	Mar. 9	469	137	17	548
Hitchcock, Reuben A. (See Kenna, Joseph W., assignor.)						
Hitchcock, Robert, Watertown, N. Y. Mechanical-lamp shell.....	234,916	Nov. 30	1372	369	18	1243
Hitchcock, Roswell D., Jr., and G. H. Read, Washington, D. C. Sailor's ditty-box.....	225,377	Mar. 9	470	137	17	548
Hitchiner, Alfred, and J. W. Heaton, Lawrence, Mass. Sled-propeller.....	224,432	Feb. 10	529	153	17	310
Hitt, Edgar, Katonah, N. Y. Buckboard.....	228,352	June 1	217	61	17	1262
Hoadley, Albert E., Chicago, Ill. Car brake and starter.....	229,041	June 22	1085	296	17	1417
Hoag, Andrew J. (See Brown and Hoag.)						
Hobbs, Alfred C., assignor to Union Metallic Cartridge Company, Bridgeport, Conn. Machine for drawing cartridge-shells.....	228,197	June 1	41	13, 14	17	1234
Hobbs, Augustin M., Waupaca, Wis. Bran-cleaner and middlings-separator.....	232,272	Sept. 14	475	132	18	611
Hobbs, Charles W., United States Army. Camp-stove.....	227,107	May 4	19	6	17	981
Hobbs, Horatio. (See Gordon, Edward F., assignor.)						
Hobbs, Joseph D., Burlington, Iowa. Churn.....	225,832	Mar. 23	1011	290	17	659
Hobbs, Joseph D., Burlington, Iowa. Driving-gear for sieves, grain-riddles, &c.....	228,758	June 15	744	205	17	1361
Hobler, Peter, Batavia, and E. G. Good, assignors to American Grinding Mill Company, Chicago, Ill. Grinding-mill.....	226,315	Apr. 6	191	56	17	781
Hobson, S. D. (See Paquet, Frank, assignor.)						
Hochhausen, William, New York, N. Y. Dynamo-electric machine.....	224,593	Feb. 17	729	207	17	353
Hochhansen, William, New York, N. Y. Magneto-electric machine.....	233,515	Oct. 19	894	247	18	900
Hochstrate, Heinrich, Zeche Rheinpreussen at Homberg-on-the-Rhine, Germany. Ore-separator.....	235,770	Dec. 21	869	243	18	1441
Hock, Julius, Vienna, Austria. Caloric engine.....	231,488	Aug. 24	1024	288	18	434
Hockaday, Edmund I., Pleasant Hill, Mo. Car-brake.....	235,530	Dec. 14	585	167	18	1387
Hockor, David K., Philadelphia, Pa. Sample-exhibitor.....	234,778	Nov. 23	1194	332 323	18	1207
Hocker, James M. (See Tabler, John H., assignor.)						
Hocking Valley Manufacturing Company. (See Outcalt and Kissner, assignors.)						
Hodge, George E. (See Weber, August, assignor.)						
Hodge, John T., Carter's Depot, Tenn. Device for delivering groceries to counter-scales.....	227,780	May 18	804	228	17	1129
Hodge, Samuel F., Detroit, Mich. Method of and apparatus for pulverizing and separating metalliferous quartz, &c. (Reissue).....	9,053	Jan. 20	712	192	17	143
Hodgen, Samuel F., Pittsfield, Ill. Sidewalk.....	233,348	Oct. 19	701	192	18	869
Hodges, Andrew J., Peoria, Ill. Grain-header. (Reissue).....	9,040	Jan. 13	512	138	17	101
Hodges, Andrew J., Peoria, Ill. Harvester. (Reissue).....	9,279	July 6	329	91	18	56
Hodges, Henry C., and C. H. Parshall, Detroit, Mich. Lubricator.....	225,985	Mar. 30	1208	342	17	704
Hodges, John H., assignor to himself and P. M. Carpenter, Attleborough, Mass. Separable button.....	230,017	July 13	590	163	18	105
Hodges, Pliny F., assignor to himself and W. Deering, Chicago, Ill. Grain-binder.....	223,805	Jan. 27	731	197 198	17	157
Hodges, Pliny F., assignor to himself and W. Deering, Chicago, Ill. Stop-motion gear.....	223,806	Jan. 27	734	198	17	157
Hodges, Pliny F., assignor to himself and W. Deering, Chicago, Ill. Grain-binder.....	233,151	Oct. 12	440	121	18	817
Hodges, Samuel H., Boston, Mass. Cutting board or table.....	227,252	May 4	192	56	17	1009
Hoe & Co., R. (See Crowell, Luther C., assignor.)						
Hoe & Co., R. (See Hedderwick, Percy D., assignor.)						
Hoe & Co., R. (See Richards, John W., assignor.)						
Hoe & Co., R. (See Spalckhaver, William, assignor.)						
Hoe, Richard M., and S. D. Tucker, New York, N. Y. Sheet-delivery apparatus for printing-machines.....	226,916	Apr. 27	922	256 257	17	931
Hoefjen, William, New York, N. Y. Machine for packing boned ham.....	234,983	Nov. 30	1455	391	18	1257
Hoelt, Hermann W., La Crosse, Wis. Roofing.....	232,643	Sept. 28	923	254	18	699
Hoer, August, Baltimore, Md. Lithographic process.....	227,782	May 18	805	228	17	1129
Hoepner, Louis, Sandwich, Ill. Hay-elevator.....	233,759	Oct. 26	1198	332	18	962
Hoernes, Nikolaus A., assignor of one-half to H. Rendtorff, Chicago, Ill. Board-fastener.....	234,370	Nov. 9	655	179	18	1104
Hofele, Ferdinand W., Brooklyn, N. Y. Telescopic ladder.....	232,968	Oct. 5	207	55 56 57	18	772
Hoff, William G. (See Patterson, John S. B., assignor.)						
Hoffeld, R. (See Gingras, Timothy, assignor.)						
Hoffman, Austin D., assignor to W. A. Amberg, Chicago, Ill. Temporary binder.....	225,012	Mar. 2	34	10	17	462
Hoffman, Austin D., and A. Moody, Chicago, Ill.; said Hoffman assignor to said Moody. Pie-making machine.....	227,630	May 18	627	179	17	1103
Hoffman, Austin D., assignor of one-half to A. Pelton and A. J. Pomeroy, Chicago, Ill. Piano-stool.....	235,360	Dec. 14	373	103	18	1351
Hoffman, Charles D., assignor to M. C. and M. Hoffman, and M. E. Renne, Cairo, N. Y. Washing-machine.....	227,781	May 18	805	228	17	1129
Hoffman, Edward J., Vermillion, Dak. Ter. Life-protector for railway-rails.....	228,353	June 1	217	62	17	1262
Hoffman, Jacob, Chippewa Falls, Wis. Flat-iron heater.....	230,777	Aug. 3	205	60	18	280
Hoffman, Joseph. (See Benson and Hoffman.)						
Hoffman, Joseph, New York, N. Y. Lead and crayon holder.....	223,513	Jan. 13	375	100	17	79
Hoffman, Joseph, assignor to J. Reckendorfer, New York, N. Y. Lead and crayon holder.....	223,510	Jan. 13	373	99	17	79
Hoffman, Joseph, assignor to J. Reckendorfer, New York, N. Y. Lead and crayon holder.....	223,511	Jan. 13	374	99	17	79
Hoffman, Joseph, assignor to J. Reckendorfer, New York, N. Y. Lead and crayon holder.....	223,512	Jan. 13	375	100	17	79
Hoffman, Joseph, assignor to J. Reckendorfer, New York, N. Y. Lead and crayon holder.....	225,379	Mar. 9	472	138	17	548
Hoffman, Joseph, assignor to J. Reckendorfer, New York, N. Y. Lead and crayon holder.....	228,897	June 15	912	249	17	1384
Hoffman, Joseph, assignor to J. Reckendorfer, New York, N. Y. Lead and crayon holder.....	235,149	Dec. 7	108	31	18	1299
Hoffman, Joseph, assignor to J. Reckendorfer, New York, N. Y. Lead and crayon holder.....	235,150	Dec. 7	109	31	18	1299
Hoffman, Joseph V., Karitan, N. J. Lathe-tool.....	233,509	Oct. 19	887	245	18	900
Hoffman, Mary, <i>et al.</i> (See Hoffman, Charles D., assignor.)						
Hoffman, Mary C., <i>et al.</i> (See Hoffman, Charles D., assignor.)						
Hoffman, William, United States Army. Knapsack attachment.....	227,166	May 4	92	25	17	993
Hofmann, William D., and J. D. Palmer, Sigourney, Iowa. Electric vapor-bath.....	236,030	Dec. 28	1205	333	18	1505
Hofmann, Emma, <i>et al.</i> (See Dewey, Jerome W., assignor.)						

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Hoffmann, Fredrick A., assignor of one-half to J. Stickney, Baldwin City, Kans. Grain steamer and drier.....	234,281	Nov. 9	559	152	18	1088
Hoffmann, Friedrich, Berlin, Prussia, Germany. Railway-rail.....	229,410	June 29	1507	416	17	1484
Hoffmann, Hermann, New York, N. Y. Alarm-lock.....	232,497	Sept. 21	758	210	18	664
Hoffmeister, Amos K., Lancaster, Pa. Kitchen-table.....	229,533	July 6	31	8	18	13
Hoffmeister, William C., Mossy Creek, Tenn. Double try-square.....	235,434	Dec. 14	465	132	18	1367
Hofmann, Heinrich, Gotha, Saxe-Coburg Gotha, Germany. Inkstand.....	234,128	Nov. 9	373	103	18	1056
Hofmann, Ottokar, Monitor, Cal. Extracting metals from ores.....	223,913	Jan. 27	865	.....	17	177
Hogan, John, Cullom, Ill. Broadcast-seeder.....	226,516	Apr. 13	438	122	17	831
Hogan, John K., Placerville, Cal. Peach-stoner.....	225,378	Mar. 9	471	137	17	548
Hogan, Matthew, assignor to Hartford Sanitary Plumbing Company, Hartford, Conn. Self-closing cock.....	232,350	Sept. 21	579	159	18	634
Hogeland, Israel, assignor to himself and G. P. Anderson, Indianapolis, Ind. Machine for pressing and molding clay into tiles and other articles.....	224,015	Feb. 3	50	16	17	212
Hogeland, Israel, assignor to himself and G. P. Anderson, Indianapolis, Ind. Portable wardrobe for trunks.....	226,855	Apr. 27	848	235	17	920
Hogeland, Israel, assignor to himself and G. P. Anderson, Indianapolis, Ind. Seasoning cylinders of one-stave vessels.....	230,481	July 27	1185	334	18	216
Hogg, John W., Washington, D. C. Basket.....	226,854	Apr. 27	847	235	17	920
Hogue, William O., Columbus, Ind. Carpet-stretcher.....	231,167	Aug. 17	670	189	18	369
Hohenstein, Archie G., assignor of one-half interest to J. Parker, New Haven, Conn. Car-coupling.....	229,411	June 29	1508	416	17	1484
Hohmaier, Frederick. (See Ammarell, Christian, assignor.)						
Hoit, Charles W., Petaluma, Cal. Grafting-tool.....	229,040	June 22	1084	296	17	1417
Hoit, David, West Albany, N. Y., assignor of one-half interest to A. Middleton, Philadelphia, Pa. Draw-bar for railway-cars.....	225,132	Mar. 2	177	50	17	486
Hojer, George W. (See Lima, Santiago, assignor.)						
Hoke, John L., South Bend, Ind. Sulky-plow.....	230,014	July 13	586	163	18	105
Hoke, Samuel, Frederick, Md. Seeding-machine.....	232,718	Sept. 28	1009	278	18	713
Holbeck, John F. T., et al. (See Baxley, Levi L., assignor.)						
Holbrook, Francis W., Minneapolis, Minn. Gate-roller.....	228,354	June 1	218	62	17	1262
Holbrook, Joseph F., et al. (See Hastings, Emory B., assignor.)						
Holbrook, Josiah, Lebanon, Ohio. Device for adjusting windows.....	231,319	Aug. 17	839	236	18	397
Holbrook, Martin L., New York, N. Y. Muscle and skin beater.....	233,758	Oct. 26	1197	332	18	962
Holbrook, Myron A., et al. (See Lupton, Addison, assignor.)						
Holcomb, Abel P., assignor to Huntley, Holcomb & Heine, Silver Creek, N. Y. Steam-generator.....	231,320	Aug. 17	840	236	18	397
Holcomb, Gustaf, Stillwater, Minn. Thrashing-machine.....	223,914	Jan. 27	866	230	17	178
Holcombe, Alfred G., assignor to C. A. Seeley, New York, N. Y. Magneto-electric machine.....	232,498	Sept. 21	759	210	18	664
Holcombe, Alfred G., Granby, Conn. Electric light.....	233,096	Oct. 12	376	103	18	806
Holcombe, Alfred G., Granby, Conn., and C. A. Cheever, New York, N. Y., assignors to said Cheever, trustee. Electrical rock-drill.....	235,947	Dec. 28	1108	306	18	1489
Holcombe, Alfred G., Granby, Conn., and C. A. Cheever, New York, N. Y., assignors to said Cheever, trustee. Electrical rock-drill.....	235,948	Dec. 28	1110	307	18	1489
Holden, Cyrus B., Worcester, Mass., assignor to J. E. Wisner, Friendship, N. Y. Horse hay-rake. (Reissue).....	9,133	Mar. 30	1397	394	17	734
Holden, George W. (See Rowell, Henry L., assignor.)						
Holderer, George C., Namur, Belgium. Manufacture of beer.....	224,186	Feb. 3	247	.....	17	244
Holgate, Renben, Neponset, Ill. Gang-plow.....	229,822	July 13	372	103	18	71
Holl, Lars, St. Louis, Mo. Double revolving chair.....	229,704	July 6	220	60	18	41
Holland, Benjamin F., Utica, Ill. Lime and cement kiln.....	224,912	Feb. 24	1108	317	17	431
Holland, Charles, Chicago, Ill. Steam-generator.....	226,072	Mar. 30	1309	369	17	720
Holland, Charles A., Fayetteville, N. C. Harness-maker's stitching-horse.....	225,604	Mar. 16	734	217	17	604
Holland, Charles A., Fayetteville, N. C., assignor to C. A. Avery, New York, N. Y. Har- ness-maker's stitching-horse.....	232,351	Sept. 21	580	{ 159 160 }	18	635
Holland, Gilbert F., Boston, Mass. Compound for preserving food.....	229,042	June 22	1087	.....	17	1417
Holland, Gustavus, San Francisco, Cal. Condiment compound.....	225,898	June 15	913	.....	17	1384
Holland, Timothy, and J. B. Vallee, Troy, N. Y. Squirt-can.....	227,108	May 4	20	6	17	981
Holland, Timothy, Troy, N. Y. Globe-valve.....	235,086	Dec. 7	29	9	18	1286
Hollem, John A., New York, N. Y. Animal-trap.....	224,910	Feb. 24	1106	316	17	431
Hollender, Emil, New York, N. Y. Bottle-stopping device.....	227,529	May 11	508	146	17	1073
Hollender, Emil, New York, N. Y. Bottle-stopper.....	228,355	June 1	219	62	17	1263
Holley, Harrison W. (See Farmer, Marcellus J., assignor.)						
Holley, Harrison W., assignor of one-fourth interest to E. T. Pollard, Lynchburg, Va. Machine for rolling and cutting tobacco.....	225,833	Mar. 23	1011	291	17	659
Holley, Jeremy P., Farmington, Me. Swivel-plow and colter.....	225,134	Mar. 2	179	50	17	487
Holliday, George H., Hanging Rock, assignor to L. Kahn, Cincinnati, Ohio. Shelf for stove-ovens.....	231,911	Sept. 7	39	9	18	530
Hollinger, Jacob, and J. Flinger, Millersburg, Ohio. Gate.....	229,412	June 29	1509	416	17	1484
Hollingsworth, James, Chicago, Ill. Horse-rake.....	231,170	Aug. 17	675	190	18	370
Hollister, Orange E., assignor of one-half to L. L. Hull, Oskaloosa, Iowa. Harness.....	235,874	Dec. 28	1016	281	18	1474
Holloway, Charles T., Baltimore, Md. Fire-engine truck.....	224,911	Feb. 24	1107	316	17	431
Holloway, Charles T., Baltimore, Md. Fire-extinguisher. (Reissue).....	9,271	June 29	1636	450	17	1502
Holloway, George, Chartham, near Canterbury, England. Paper-making machinery.....	231,169	Aug. 17	673	{ 189 190 }	18	369
Holloway, George, Chartham, near Canterbury, England. Felt-cleaning apparatus for paper-machines.....	231,579	Aug. 24	1129	316	18	449
Holloway, Josephus F., Cleveland, Ohio. Compound engine.....	224,779	Feb. 24	957	{ 272 273 }	17	407
Holloway, Nathan. (See Link, Frederic W., assignor.)						
Holloway, Willis W., and J. A. McCain, Carrollton, Ga. Washing-machine.....	224,689	Feb. 17	832	236	17	371
Holloway, John, London, Great Britain. Production of sulphur, copper matte, &c., from pyrites.....	234,129	Nov. 9	374	.....	18	1056
Hollwede, Charles, St. Louis, Mo. Brush-wrapper.....	224,913	Feb. 24	1109	317	17	431
Holly, Birdsill, Lockport, N. Y. Steam heating-radiator.....	232,821	Oct. 5	30	9	18	743
Holly, George W., Low Moor, Iowa. Combined shoveling-board and end-gate for wagons.....	232,969	Oct. 5	211	57	18	773
Holly, Harrison W. (See Pollard, Edward T., assignor.)						
Holly, Henry W., Brooklyn, N. Y. Slating compound for erasable tablets.....	225,133	Mar. 2	178	.....	17	487
Holly, James H., et al. (See Pont, Addie M., assignor.)						
Holman, Albert P., assignor to Rockingham Shoe Company, Portsmouth, N. H. Shoe.....	234,187	Nov. 9	444	120	18	1068
Holmes, Booth & Haydens. (See Hayden, Hiram W., assignor.)						
Holmes, Booth & Haydens. (See White, Hiram J., assignor.) (Reissue.)						
Holmes, Britain. (See Holmes, Edward and B.)						
Holmes, C. E. L. (See Smith, William M., assignor.)						
Holmes, Daniel M., New York, N. Y. Cake-machine. (Reissue).....	9,062	Feb. 3	327	94	17	257



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Holmes, Edward and B., Buffalo, N. Y. Machine for making staves.....	224,187	Feb. 3	248	72	17	244
Holmes, Edward and B., Buffalo, N. Y. Drying-kiln.....	231,168	Aug. 17	671	189	18	369
Holmes, Edward and B., Buffalo, N. Y. Apparatus for drying barrels.....	235,531	Dec. 14	586	167	18	1387
Holmes, Edwin, Brooklyn, N. Y. Electric-circuit-breaking clock. (Reissue).....	9,209	May 18	921	263	17	1149
Holmes, Elijah, Lynn, Mass. Peg-cutter.....	225,284	Mar. 9	369	108	17	531
Holmes, Elijah, Lynn, Mass. Peg-cutter.....	225,285	Mar. 9	370	108	17	531
Holmes, Ezekiel B., Canandaigua, N. Y. Apparatus for making illuminating-gas from hydrocarbon liquid and water.....	231,423	Aug. 24	956	270	18	422
Holmes, George F., Fonda, N. Y. Railway-train indicator.....	230,417	July 27	1103	310	18	202
Holmes, George H. (See Dennett and Holmes.)						
Holmes, George W., Council Bluffs, Iowa. Oven for drying fruit, &c.....	232,033	Sept. 7	192	52	18	556
Holmes, Hugh A. (See Crossman, Montgomery, assignor.)						
Holmes, Ira, Holmesville, N. Y. Turbine water-wheel.....	227,253	May 4	193	56	17	1009
Holmes, James, Franklin, Ind. Device for filling graves.....	226,856	Apr. 27	849	235	17	920
Holmes, John H., Charleston, Kans. Churn.....	232,717	Sept. 28	1009	278	18	713
Holmes, Joseph H., et al. (See Holmes, William, assignor.)						
Holmes, Mary A. C., Newport, R. I. Mechanism for channeling and pricking the soles of boots and shoes.....	227,167	May 4	93	26	17	993
Holmes, Nelson, Ypsilanti, Mich. Windmill.....	234,188	Nov. 9	444	120	18	1068
Holmes, Nelson, Ypsilanti, Mich. Pump.....	234,189	Nov. 9	446	121	18	1069
Holmes, Philip H., Gardiner, Me. Wood fiber for paper-pulps, and process and machine for producing the wood fiber.....	228,899	June 15	913	249	17	1384
Holmes, Thomas, et al. (See Holmes, William, assignor.)						
Holmes, Thomas J. (See Youngblood and Holmes.)						
Holmes, Thomas J., Boston, Mass. Liquid-ejector.....	233,248	Oct. 12	556	154	18	838
Holmes, William, assignor to himself, T. and J. H. Holmes, Philadelphia, Pa. Loom-shuttle.....	231,042	Aug. 10	517	145	18	337
Holmgreen, Julius H., assignor to A. T. Bennett, Chicago, Ill. Wick-raiser for lamp-stoves.....	233,856	Nov. 2	37	9, 10	18	993
Holt, Alden. (See Jones and Holt.)						
Holt & Co., Hiram. (See Offinor, James, assignor.) (Reissue.)						
Holt, Frederick W. (See Murray and Holt.)						
Holt, Gardner L., Springfield, Mass. Bit-brace.....	235,532	Dec. 14	587	167	18	1387
Holt, John P., Cleveland, Ohio. Barrel-filler.....	233,247	Oct. 12	555	154	18	837
Holt, Jordan C. (See Seitz, Philip, assignor.)						
Holt, Robert, assignor to R. & H. Adams, Paterson, N. J. Machine for stretching woven fabrics.....	230,703	Aug. 3	123	36	18	266
Holter, Peter A., Worcester, Mass. Revolving fire-arm.....	223,645	Jan. 20	538	145	17	115
Holton, Charles C. (See Good, Edward G., assignor.)						
Holton, Francis H., Brooklyn, N. Y., assignor to O. Cleveland, Jersey City, N. J. Erasive rubber.....	233,511	Oct. 19	889	245	18	899
Holton, George D., et al. (See Walsh, James F., assignor.)						
Holton, George J., Galesburg, assignor of one-half interest to J. N. Shehi, Monmouth, Ill. Car-axle box.....	233,152	Oct. 12	442	{ 121 122 }	18	817
Holton, Merritt A., Fitchburg, Mass. Leather-skiving machine.....	230,280	July 20	912	259	18	164
Holton, Thomas J., Philadelphia, Pa. Sewing-machine shuttle.....	233,760	Oct. 26	1199	332	18	962
Holtz, Carl E., St. Louis, Mo. Zither.....	224,535	Feb. 17	651	187	17	340
Holtz, Carl E., St. Louis, Mo. Harp.....	224,536	Feb. 17	651	187	17	341
Holtz, Julius, assignor to Chemische Fabrik auf Actien, (Vorm E. Schering,) Berlin, Prussia, Germany. Obtaining tannic acid.....	231,489	Aug. 24	1026	288	18	434
Holtzmann, Emil, Speyer, Germany, assignor to W. Arbuthnot, London, England. Producing multiple copies of writings.....	227,629	May 18	626	.....	17	1103
Holub, Frank. (See Locke, Charles S., assignor.)						
Holub, Frank, and C. S. Locke, Chicago, Ill. Machine for bending and forging horseshoe-blanks.....	227,008	Apr. 27	1030	{ 285 286 }	17	949
Holub, Frank, and C. S. Locke, Chicago, Ill. Machine for creasing, punching, and swaging horseshoe-blanks.....	277,009	Apr. 27	1032	{ 286 287 }	17	949
Holub, Frank, and C. S. Locke, Chicago, Ill. Machine for splitting old railway-rails and rolling the pieces into merchantable bars.....	227,010	Apr. 27	1033	287	17	949
Holyoke, Samuel G. (See Brown and Holyoke.)						
Holz, Louis, and L. Meyer, Paris, France. Tooth-brush.....	229,823	July 13	374	103	18	72
Holzner, Charles, and F. Vohringer, Louisville, Ky. Coal-hod.....	223,349	Jan. 6	164	43	17	30
Honzik, Rudolf. (See Schlump and Honzik.)						
Hood, Freeman W., Norwich, Conn. Revolving fire-arm.....	235,240	Dec. 7	215	58	18	1316
Hood, Harrison P., assignor of one-half interest to R. R. Rouse, Indianapolis, Ind. Wrench.....	225,135	Mar. 2	179	50	17	487
Hood, Willis F., Deerfield, Mich. Bias-cutter.....	234,476	Nov. 16	809	217	18	1138
Hook, Joseph, et al. (See Gardner, Robert J., assignor.)						
Hooker, Thomas, Syracuse, N. Y. Machine for straightening and gaging twist drills and bits.....	235,533	Dec. 14	588	168	18	1387
Hooker, Thomas, Syracuse, N. Y. Machine for making twist-drills.....	235,534	Dec. 14	589	168	18	1388
Hooker, William H., Lone Oak, Tex. Horse-power machine.....	227,900	May 25	958	275	17	1166
Hookham, George, assignor of one-half to A. Ludlow, Birmingham, county of Warwick, England. Metallic line or cord and fastening for suspending pictures, &c.....	236,031	Dec. 28	1207	{ 333 334 }	18	1505
Hooper, Clark, Cairo, Mich. Door-check.....	225,380	Mar. 9	473	138	17	548
Hooper, Francis X. (See Bateman and Hooper.)						
Hooper, Nicholas B. (See Keenan, William, assignor.)						
Hooper, Nicholas B. (See Keenan, William, assignor.) (Reissue.)						
Hooper & Sons, William E. (See Chandloe, Isaac G., assignor.)						
Hooper, William, Ticonderoga, N. Y. Ore-separator.....	235,241	Dec. 7	216	59	18	1316
Hoopes, William H., Baltimore, Md. Manufacture of artificial stone or marble.....	223,735	Jan. 20	635	.....	17	130
Hoopes, William H., Baltimore, Md. Paint.....	231,960	Sept. 7	111	28	18	541
Hooven, James, Norristown, Pa. Machine for skelping iron.....	225,835	Mar. 23	1013	291	17	660
Hoover, Eli, West Branch, Iowa. Cattle-pump.....	232,499	Sept. 21	760	210	18	664
Hoover, Isaac, Samaria, Mich. Washing-machine.....	229,610	July 6	117	31	18	26
Hoover, Thomas J., Woodbury, Tenn. Car-coupling.....	233,514	Oct. 19	892	247	18	900
Hope, George T., et al. (See Allen, John F., assignor.) (Reissue.)						
Hope, John, Providence, R. I. Engraving-machine.....	225,705	Mar. 23	865	253	17	636
Hopfen, Anton, New York, N. Y. Box, &c.....	234,280	Nov. 9	557	152	18	1087
Hopkin, George E., Philadelphia, Pa. Stove attachment.....	229,824	July 13	375	104	18	72
Hopkins, Addison S. (See Macomber, William C., assignor.)						
Hopkins, Burton J., Ontario, N. Y. Apple-corer.....	227,901	May 25	959	275	17	1166
Hopkins, Caleb, Waltham, Mass. Watch-maker's lathe-chuck.....	233,097	Oct. 12	377	104	18	806
Hopkins, David A., Park Ridge, N. J. Journal-bearing.....	235,435	Dec. 14	466	132	18	1367
Hopkins, Francis, New York, N. Y. Eyeglasses.....	235,436	Dec. 14	467	132	18	1367
Hopkins, George M., Brooklyn, N. Y. Telegraph-relay.....	229,414	June 29	1511	417	17	1484
Hopkins, George M., Brooklyn, N. Y. Telephone-transmitter.....	231,226	Aug. 17	744	208	18	380



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Hopkins, John A., <i>et al.</i> (See Campbell, Peter, assignor.)						
Hopkins, Selden R., New York N. Y. Temporary binder.....	228,637	June 8	578	153	17	1325
Hopkins, Sylvanus C., Boston, Mass. Seat for chairs, settees, and vehicles.....	235,437	Dec. 14	468	133	18	1367
Hopkins, William W., Thorntown, Ind. Wagon-scale.....	232,500	Sept. 21	761	211	18	665
Hopkinsen, William W., London, England. Apparatus for controlling the supply of combustible liquids for lighting.....	231,670	Aug. 31	1243	350	18	474
Hoppen, George R. (See Edwards, Alfred, assignor.)						
Hopper, Thomas C., assignor to American Meter Company, Philadelphia, Pa. Gas-meter.....	227,783	May 18	807	228	17	1129
Horan, Daniel. (See Perin, Horan, and McGoen.)						
Horan, Daniel, Cincinnati, Ohio. Pressure-gage for beer-stills.....	226,614	Apr. 20	566	158	17	863
Horine, Luther A., Jefferson, Md. Fertilizer-distributor.....	231,043	Aug. 10	517	146	18	337
Horn, David, Mobercanville, Ohio. Pitman-rod of mowing-machines.....	227,254	May 4	194	57	17	1009
Horn, Frederick, St. Louis, Mo. Pocket-register.....	236,032	Dec. 28	1209	334	18	1505
Horn, Hermann, <i>et al.</i> (See Konrad, William, assignor.)						
Horn, William C. (See Hafely, Alfred C., assignor.)						
Horn, William C. (See Sneider, Charles, assignor.)						
Horne, C. H. (See Breeding, William P., assignor.)						
Horne, Elijah W. (See Pylant, Tiry S., assignor.)						
Horne, George W., assignor of one-fourth interest to J. A. Mars, San Francisco, Cal. Fare-box.....	232,719	Sept. 28	1011	278	18	713
Horne, William L., and A. M. Corning, Meriden, Conn; said Corning assignor to said Horne. Fluid-pressure regulator.....	227,785	May 18	809	229	17	1130
Horner, Albert N., Baltimore, Md. Shirt.....	235,242	Dec. 7	218	59	18	1317
Horner, Albert N., Baltimore, Md. Shirt.....	235,875	Dec. 28	1016	281	18	1474
Horner, Frank M. (See Becktel and Horner.)						
Horner, John C., and J. A. Ray, Leon, Iowa. Whiffletree-hook.....	229,888	July 13	446	123	18	83
Hornum, William H., assignor of three-fourths interest to A. Hance, New York, N. Y. } Fare-box.....	225,605	Mar. 16	735	{ 217 218 }	{ 17	604
Hornum, William H., New York, assignor, by mesne assignments, to Railway Register Manufacturing Company, Buffalo, N. Y. Fare-register. (Reissue.).....	9,371	Sept. 7	265	73, 74	18	568
Hornum, William H., New York, assignor, by mesne assignments, to Railway Register Manufacturing Company, Buffalo, N. Y. Fare-register. (Reissue.).....	9,489	Dec. 7	316	89	18	1334
Hornung, Lewis, Brookville, Ind. Vegetable and meat slicer.....	224,016	Feb. 3	52	16	17	212
Horsford, Eben N., Cambridge, Mass. Pulverulent preparation of phosphoric acid.....	229,705	July 6	221	.....	18	41
Horsford, Eben N., Cambridge, Mass. Pulverulent preparation of phosphoric acid.....	230,874	Aug. 10	334	.....	18	309
Horsley, William R., Columbia, assignor to J. B. Clough, North Amherst, Ohio. Device for stretching wire.....	233,619	Oct. 26	1037	288	18	934
Horstmann, F. Oden, Philadelphia, Pa. Fan.....	229,415	June 29	1512	417	17	1455
Horter, Washington. (See Lee, Archibald K., assignor.)						
Horton, Angell & Co. (See Caldwell and Winslow, assignors.) (Reissue.)						
Horton, Barrett W., New York, N. Y. Cheese-bandage.....	223,915	Jan. 27	868	230	17	178
Horton, Charles H., Brighton, Ohio. Grain-meter.....	225,234	Mar. 23	1013	291	17	659
Horton, David M., Fishkill Village, N. Y. Snow-plow.....	227,011	Apr. 27	1035	287	17	950
Horton, Henry W. and S. S.; said S. S. Horton assignor to L. D. Stone, Binghamton, N. Y. Milk-cooling apparatus.....	231,802	Aug. 31	1403	395	18	500
Horton, James A. (See Akerley, Oliver, assignor.)						
Horton, John H., East Poestenkill, N. Y. Car-coupling.....	231,719	Aug. 31	1299	365	18	483
Horton, Nathan W., Wilkesbarre, Pa. Carriage for rock-drills.....	227,899	May 25	958	{ 274 275 }	{ 17	1165
Horton, Numon N., Kansas City, Mo. Heater, cooler, and ventilator for railway-cars.....	227,977	May 25	1053	299	17	1180
Horton, Numon N., Kansas City, Mo. Spring-motor.....	229,887	July 13	445	{ 122 123 }	{ 18	83
Horton, Numon N., Kansas City, Mo. Dentist's chair.....	232,352	Sept. 21	582	160	18	635
Horton, Seth L., Providence, R. I. Memorandum-book.....	224,335	Feb. 10	423	120	17	292
Horton, Seymour S. (See Horton, Henry W. and S. S.)						
Hosack, Alfred, Silver Lake, Ind. Bridle-blinder.....	234,779	Nov. 23	1196	323	18	1207
Hesack, William J., Northwood, Ohio. Garden implement.....	228,638	June 8	579	153	17	1325
Hosea, Lewis M. (See Brewer, Wesley S., assignor.)						
Hosea, Lewis M., Cincinnati, Ohio. Velocipede.....	228,996	June 22	1042	284	17	1411
Hoskin, John. (See Allison and Hoskin.)						
Hoskins, Samuel A., Sioux City, Iowa. Show case and stand.....	226,857	Apr. 27	850	236	17	920
Hosmer, Francis E., Boston, Mass. Steam-generator.....	234,872	Nov. 30	1316	355	18	1234
Hoster, Theodore G., assignor of three-fourths interest to W. Heckert, Yonkers, and J. H. Smith, Brooklyn, N. Y. Ribbon-paper-printing machine.....	224,537	Feb. 17	652	187	17	341
Hoster, Theodore G., assignor of one-half interest to W. Heckert, Brooklyn, N. Y. Pump.....	225,930	Mar. 30	1135	323	17	693
Hestler, John A. (See Siprell, Darius W., assignor.)						
Hotchkiss, Arthur E., Cheshire, Conn. Clock-movement.....	223,673	Jan. 20	572	154	17	120
Hotchkiss, Charles A., assignor to E. R. Ives, Bridgeport, Conn., and C. Blakeslee, Brooklyn, N. Y. Toy handkerchief.....	232,034	Sept. 7	192	52	18	556
Hotchkiss, Timothy D., Cromwell, Conn. Hanging lamp.....	224,538	Feb. 17	655	188	17	341
Hotchkiss, Timothy D., Cromwell, Conn. Extension-chandelier.....	234,477	Nov. 16	811	217	18	1138
Hotine, Frederick T., Philadelphia, Pa. Culinary apparatus.....	234,711	Nov. 23	1115	301	18	1195
Hotsenpiller, Edwin R. (See Way, Thomas R., assignor.)						
Hottel, William H., Woodstock, Va. Alarm attachment for grist-mills.....	225,136	Mar. 2	180	51	17	487
Hotz, Christoph, Chicago, Ill. Wagon running-gear.....	229,132	June 22	1186	325	17	1432
Hotz, Christoph, and M. Conrad, Chicago, Ill.; said Conrad assignor to said Hotz. Cart.....	229,133	June 22	1187	325	17	1432
Houck, Edwin. (See Peck, Isaac D., assignor.)						
Houck, Charles, <i>et al.</i> (See Houck, John, assignor.)						
Houck, John, assignor to himself, N. and C. Houck, Tobyhanna Mills, Pa. Feed mechanism for lathes.....	223,736	Jan. 20	636	171	17	130
Houck, Nathan, <i>et al.</i> (See Houck, John, assignor.)						
Houghton, Jesse F., Boston, Mass. Dust-pan and brush-holder.....	233,857	Nov. 2	39	10	18	993
Houlsworth, John G., Jefferson, Pa. Millstone-feeding device.....	223,514	Jan. 13	376	100	17	79
Houpt, Samuel D., Findlay, Ohio. Burglar-alarm.....	225,606	Mar. 16	738	218	17	605
Houpt, Samuel D., Findlay, Ohio. Carpet-stretcher.....	227,784	May 18	808	229	17	1130
Houpt, Samuel D., Findlay, Ohio. Microphone.....	230,550	July 27	1258	355	18	228
Houdeaux, Amédée, Lichtenfels, Bavaria, Germany. Basket-handle attachment.....	230,482	July 27	1186	334	18	216
House, Henry A., and S. D. Castle, Bridgeport, Conn. Treating pelts.....	233,415	Oct. 19	787	217	18	883
House, James A., Bridgeport, Conn. Stitching button-holes, eyelets, &c.....	225,381	Mar. 9	474	138	17	549
House, James A., Bridgeport, Conn. Stocking-supporter.....	229,889	July 13	446	123	18	83
House, John H. B. (See Fowler, Joseph C., assignor.)						
Housley, Daniel W., Grove City, Ill. Spring-hinge.....	227,786	May 18	811	229	17	1130
Housman, Edward A. (See Coulter, Thomas J., assignor.)						

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Houston, Edwin J. (See Thomson and Houston.)						
Houston, Edwin J., and E. Thomson, Philadelphia, Pa. Regulator for electric lamps.....	223,646	Jan. 20	540	{ 145 146 }	17	115
Houston, Levi, Montgomery, Pa. Wood-surfacing machine.....	233,620	Oct. 26	1039	289	18	934
Houston, William P. (See Sutton, Harvey W., assignor.)						
Housum, Charles P. (See Dupee and Housum.)						
Housum, Charles P., Decatur, Ill. Manufacture of paper boxes.....	235,682	Dec. 21	765	217	18	1424
Houts, John Q., Sioux Falls, Dak. Ter. Bottle-stopper.....	234,035	Nov. 2	261	71	18	1029
Hovey, William H., Springfield, Mass. Extinguisher.....	224,539	Feb. 17	656	188	17	342
Hovey, William H., Springfield, Mass. Self-extinguishing gas burner and regulator.....	227,436	May 11	406	118	17	1054
Howard, Arthur L., New Haven, Conn. Fabricated paper or vulcanized fiber applied to corset-stays as a substitute for whalebone, &c.....	231,045	Aug. 10	520	.....	18	338
Howard, Charles, Olive, N. Y. Churn-power.....	231,490	Aug. 24	1027	288	18	434
Howard, Charles P., assignor to J. L. Howard & Co., Hartford, Conn. Car-lamp.....	224,434	Feb. 10	532	154	17	310
Howard, Charles P., assignor to J. L. Howard & Co., Hartford, Conn. Car-lamp.....	224,780	Feb. 24	958	273	17	407
Howard & Co., James L. (See Howard, Charles P., assignor.)						
Howard, Cyrus R., Huntingdon, Pa. Car-coupling.....	230,015	July 13	588	163	18	105
Howard, Edward L., assignor of one-half to R. A. Dimmick, Washington, D. C. Railway-ticket.....	235,243	Dec. 7	218	59	18	1317
Howard, Elijah L., Hingham, Mass. Sewing-machine brake.....	223,228	Jan. 6	22	5	17	6
Howard, Henry C., Toledo, Ohio. Apparatus for cooking and drying grain by steam.....	226,172	Apr. 6	29	8	17	751
Howard, Horace B., Belvidere, Ill. Car-coupling.....	231,044	Aug. 10	519	146	18	338
Howard, Horace B., Belvidere, Ill. Steam and air brake coupling.....	233,513	Oct. 19	890	246	18	900
Howard, James S., Springfield, Mass., assignor to J. M. Abbott, Waterbury, Conn. Aluminium-alloy plating.....	228,900	June 15	916	.....	17	1384
Howard, Joseph, Bryan, Tex. Corn and cotton planter.....	232,501	Sept. 21	762	211	18	665
Howard, Joseph T., Washington, D. C. Cattle-car.....	230,040	Aug. 10	404	117	18	320
Howard, Melvin, Plano, Ill. Guard-finger.....	223,807	Jan. 27	736	198	17	157
Howard & Scherrieble. (See Laroussie, Paul, assignor.)						
Howard & Scherrieble. (See Nelson, Nels, assignor.)						
Howard, Thomas S. L., Somerville, assignor to G. McKay, trustee, Cambridge, Mass. Presser-foot and cord-guide for button-hole sewing-machines.....	225,523	Mar. 16	646	188	17	587
Howe, Benjamin J., Sing Sing, N. Y. Dish-washer.....	229,413	June 29	1510	416	17	1484
Howe, Charles A., Niles, Mich. Car brake and starter.....	227,255	May 4	195	57	17	1010
Howe, Charles P., Galveston, Tex. Mattress-making machine.....	233,512	Oct. 19	880	246	18	899
Howe, Eugene L., Chicago, Ill. Truck.....	230,630	Aug. 3	40	12	18	253
Howe, Eugene L., Chicago, Ill. Drive-chain.....	231,580	Aug. 24	1130	316	18	450
Howe, Henry A., Detroit, Mich. Mower.....	225,607	Mar. 16	739	{ 218 219 }	17	605
Howe, John, Jr., East Boston, assignor of one-half interest to A. B. Jernegan, Lynn, Mass. Locomotive-engine.....	233,349	Oct. 19	703	192	18	869
Howe, Orrin P., Augusta, Me. Window-screen.....	225,383	Mar. 9	476	139	17	549
Howe, Patrick F. (See Howe, Thomas J and P. F.)						
Howe Scale Company. (See Reynolds, William W., assignor.)						
Howe, Solon G., assignor of one-half to J. Onellette, Detroit, Mich. Mallet.....	235,244	Dec. 7	220	59	18	1317
Howe, Thomas J. and P. F., Des Moines, Iowa. Barbing-machine.....	228,635	June 8	575	152	17	1325
Howe, Warren B., Atchison, Kans. Device for packing candy.....	230,778	Aug. 3	206	60	18	280
Howe, William H. (See Brown, James B., assignor.)						
Howe, William H., Baltimore, Mich. Windmill.....	233,510	Oct. 19	887	245	18	899
Howell & Co., D. B. (See Livingston, Francis M., assignor.)						
Howell, Harrison, assignor to A. Bales and I. Howell, Sullivanville, N. Y. Clothes-pounder.....	223,647	Jan. 20	542	146	17	115
Howell, Isaac, et al. (See Howell, Harrison, assignor.)						
Howell, Sylvanus S. (See Lovelace, Alfred N., assignor.)						
Howells, John R., Plymouth, Pa. Mining-drill.....	223,590	Jan. 13	466	126	17	94
Howells, Thomas, 848 Old Kent Road, Parish of Saint Giles, Camberwell, County of Surrey, Great Britain. Violin.....	223,916	Jan. 27	868	231	17	178
Howells, Thomas, Auckland, New Zealand. Piano-forte.....	229,134	June 22	1188	325	17	1432
Howes, Charles, Hudson, assignor to T. B. Patch, Marlborough, Mass. Excelsior-machine.....	234,475	Nov. 16	808	217	18	1138
Howey, Jesse S., Lexington, Mich. End-gate for wagons.....	224,914	Feb. 24	1110	317	17	431
Howland, Angelo, and H. Lawton, Westerly, R. I., assignors to J. Birkenhead, Mansfield, Mass. Ring-spinning machine.....	223,674	Jan. 20	573	154	17	120
Howland, Arthur H. (See Hill, Tolman, and Howland.)						
Howland, Elisha J., Indianapolis, Ind. Road scraper, grader, and leveler.....	231,581	Aug. 24	1131	317	18	450
Howlett, A. Ames. (See Murphy, William H., assignor.)						
Howlett, Edwin J. (See Stillwell, Charles B., assignor.)						
Howson, Richard, Middlesbrough-on-Tees, Great Britain. Piano-forte.....	232,970	Oct. 5	212	57	18	773
Hoxsey, Thomas F., Paterson, N. J. Manufacture of paper-pulp from wood.....	231,720	Aug. 31	1300	.....	18	483
Høyby, Kristian H. E., Odense, Denmark. Lamp-burner.....	225,524	Mar. 16	647	188	17	588
Hoye, Stephen M., Mount Carmel, Conn. Die for swaging carriage-clips.....	228,636	June 8	577	153	17	1325
Hoyle, David P., Pittsburg, Pa. Railway time-piece.....	233,249	Oct. 12	558	154	18	838
Hoyt, Albert S., Chicago, Ill. Grain-binder.....	223,852	Jan. 27	788	{ 210 211 }	17	165
Hoyt, Frederick J. (See Harris, William E., assignor.)						
Hoyt, Frederick J., et al. (See Hayden, Joel B., assignor.)						
Hoyt, George W., et al. (See Peato, George R., assignor.)						
Hoyt, Henry I. (See Buchanan, Toncey, and Hoyt.)						
Hoyt, Henry I., Norwalk, Conn. Locomotive-boiler.....	226,231	Apr. 6	97	26	17	763
Hoyt, Jehiel K., Newark, N. J. Pencil-sharpening guide.....	227,012	Apr. 27	1036	288	17	950
Hoyt, Joseph, Jackson, Mich. Relief-valve for air-cylinders.....	228,532	June 8	445	121	17	1306
Hoyt, Lewis S., assignor of one-half interest to L. H. English, New Haven, Conn. Car-brake.....	225,382	Mar. 9	475	138	17	549
Hoyt, Lucius P., Aurora, Ill. Wood-planing machine.....	223,851	Jan. 27	786	{ 209 210 }	17	165
Hoyt, Purdy B. (See Bowen, George A., assignor.)						
Hubbard, Andrew C., Danbury, Conn. Telephone-support.....	230,779	Aug. 3	207	60	18	280
Hubbard, Charles, et al. (See Jerrold, John E., assignor.)						
Hubbard, Charles M., Columbus, Ohio. Baby-carriage.....	233,761	Oct. 26	1199	333	18	962
Hubbard, Eber, Medina, N. Y. Machine for making paper pails.....	226,752	Apr. 20	717	200	17	887
Hubbard, Eber, assignor to A. H. Morrison, St. Joseph, Mich. Paper-pulp pail.....	234,405	Nov. 16	727	196	18	1124
Hubbard, Frank J. (See Rice, Jesse T., assignor.)						
Hubbard, George W., Windsor, Vt. Glazier's point.....	230,631	Aug. 3	42	12	18	254
Hubbard, George W., Windsor, Vt. Packing glaziers' points.....	230,632	Aug. 3	42	12	18	254
Hubbard, James G., et al. (See Kenyon, John, assignor.)						
Hubbard, Joseph W., Wilton Junction, Iowa. Newspaper-file.....	226,858	Apr. 27	850	236	17	920

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Hubbard, Lucius F. (See Bergstrom, Henry, assignor.)						
Hubbard, Lucius F. (See Olson, John A., assignor.)						
Hubbard, Moses G., assignor to Grain Binder Association, Norristown, Pa. Grain-band cutter.	231,424	Aug. 24	958	270	18	422
Hubbell, Joseph, Dayton, Ohio, assignor to E. P. Allis. Head-block for saw-mills. (Re-issue)	9,078	Feb. 17	908	{ 259 260 }	{ 17 17 }	{ 384 384 }
Hubbell, Ray, Northville, N. Y. Metal corner for oil-cloth.	224,435	Feb. 10	534	154	17	311
Hubbell, Thomas L., Pescadero, Cal. Sieve-protector for thrashing-machines.	225,608	Mar. 16	742	219	17	606
Hubby, Mead M., Maysfield, Tex. Post-hole auger.	233,931	Nov. 2	117	32	18	1006
Huber, Edward, and F. Strobel, Marion, Ohio. Grain separator and thrasher.	231,803	Aug. 31	1404	{ 396 397 }	{ 18 18 }	{ 500 500 }
Huber, Henry. (See Lampert and Huber.)						
Huber, Henry, Crestline, Ohio. Bretzel-machine.	223,917	Jan. 27	870	231	17	178
Huber, Samuel, Danville, Pa. Plow-colter.	226,316	Apr. 6	192	56	17	781
Hubert, Gustav, Grand Haven, Mich. Vehicle-spring.	225,384	Mar. 9	477	139	17	549
Hübner, Robert, Berlin, Prussia, Germany. Meat-cutter.	234,478	Nov. 16	812	217	18	1138
Hudson, David, Seneca Falls, N. H. Horseshoe.	223,737	Jan. 20	637	171	17	130
Hudson, Gilbert L., Romeo, Mich. Hand-planter.	234,984	Nov. 30	1456	391	18	1257
Hudson, James F., and J. Burrill, assignors of one-half interest to G. W. Lascell and A. H. Whitten, Lynn, Mass. Horn-bearing for boots and shoes.	227,631	May 18	628	180	17	1103
Hudson, John, and F. R. Alderman, Detroit, Mich. Tie-strap attachment.	228,534	June 8	447	122	17	1306
Hudson, John W. (See Rollins and Hudson.)						
Hudson, John W., Wellington, Ill. Tire-upsetting machine.	225,286	Mar. 9	371	108	17	531
Hudson, John W., Wellington, Ill. Check-rower for corn-planters.	226,859	Apr. 27	851	236	17	920
Hudson, John W., Wellington, Ill. Railway-joint.	227,530	May 11	509	146	17	1073
Hudson, John W., Wellington, Ill. Check-rower rope for corn-planters.	227,787	May 18	813	230	17	1130
Hudson, John W., Wellington, Ill. Wheel-cultivator.	229,534	July 6	32	8, 9	18	13
Hudson, John W., Madison, Wis. Agricultural boiler.	229,891	July 13	448	124	18	83
Hudson, Junior F., Wellington, Ill. Corn-planter.	224,594	Feb. 17	729	207	17	353
Hudson, M. Barney, assignor of one-half to N. R. Boswell, Canandaigua, N. Y. Ash-sifter.	235,361	Dec. 14	374	103	18	1351
Hudson, Orvis D., Waupun, Wis. Clothes-wringer.	230,942	Aug. 10	407	117	18	320
Huestis, Benjamin N., Phelpsstown, N. Y. Generating artificial heat.	234,190	Nov. 9	448	18	18	1069
Huetter, Nicholas, Kenosha, Wis. Burglar-proof safe.	232,036	Sept. 7	194	52	18	556
Huey, William, assignor to himself and J. D. Richards, Cambridge, Md. Egg carrier and crate.	224,436	Feb. 10	535	154	17	311
Huey, William, assignor to himself and J. D. Richards, Cambridge, Md. Machine for cutting wooden box-blanks.	224,437	Feb. 10	536	155	17	311
Huff, Abraham T. (See Norton, George P., assignor.)						
Huff, Abraham T., Neshanic, N. J. Meat-chopper.	228,535	June 8	447	122	17	1306
Huff, Abraham T., Neshanic, N. J. Nut for screw-bolts.	228,816	June 15	822	225	17	1371
Huff, James A., et al. (See Nolen, Stephen A., assignor.)						
Huff, John M., et al. (See Nolen, Stephen A., assignor.)						
Huffman, Samuel, Matanzas, Kans. Support for pillows.	230,633	Aug. 3	43	13	18	254
Huffman, Samuel, Matanzas, Kans. Clothes-wringer.	234,577	Nov. 16	932	250	18	1158
Hug, Daniel, Ula, Colo. Breech-loading fire-arm.	232,035	Sept. 7	193	52	18	556
Hogentobler, Emil M., assignor, by mesne assignments, of part interest to A. Hazard and J. Bradley, Philadelphia, Pa., and G. W. Dyer, Washington, D. C. Mining and excavating apparatus.	228,356	June 1	220	62	17	1263
Huggins, Zadock, Allegan, Mich. Hub-attaching device.	225,836	Mar. 23	1015	292	17	660
Hughes, Charles W., Hycro, Va. Tobacco-drying furnace.	226,517	Apr. 13	439	123	17	831
Hughes, David W., Hamilton, Ohio. Hand-cultivator.	233,762	Oct. 26	1200	333	18	962
Hughes, Edward H. (See Hughes, Theodore J. and E. H.)						
Hughes, Edward H., Philadelphia, Pa. Refrigerator.	228,759	June 15	745	205	17	1361
Hughes, James R., Saugus, Mass. Egg-beater.	235,245	Dec. 7	221	60	18	1317
Hughes, John, assignor of one-half interest to T. E. Hughes, Pittsburg, Pa. Casing for glass and other fragile vessels.	232,502	Sept. 21	762	211	18	665
Hughes, John O., and J. Eynon, Philadelphia, Pa. Railway for travelers.	235,536	Dec. 14	592	169	18	1388
Hughes, Joseph H., assignor to W. Bown, Birmingham, England. Bearing for wheels.	227,632	May 18	629	180	17	1103
Hughes, Kate D., Washington, D. C. Window-button securer.	227,978	May 25	1054	300	17	1180
Hughes, Samuel, Charleston, S. C. Refrigerator-car.	229,611	July 6	118	32	18	26
Hughes, Samuel, Charleston, S. C. Rice-pounder.	235,535	Dec. 14	591	{ 168 169 146 }	{ 18 18 17 }	{ 1388 1388 1073 }
Hughes, Smith E., Philadelphia, Pa. Construction of jetties.	227,531	May 11	510	{ 146 147 }	{ 17 17 }	{ 1073 1073 }
Hughes, Theodore J. and E. H., Philadelphia, Pa. Refrigerator-building.	233,621	Oct. 26	1039	289	18	935
Hughes, Thomas E. (See Hughes, John, assignor.)						
Hughes, William, assignor to B. O'Reilly, Rochester, N. Y. Bob-sleigh.	226,518	Apr. 13	440	123	17	831
Hughes, William, Arondale, and J. L. Foulk, Strasburg, Pa. Limekiln.	231,321	Aug. 17	842	{ 236 237 }	{ 18 18 }	{ 397 397 }
Hughes, William G., Chubbusco, Ind. Wagon-spring.	230,281	July 20	913	260	18	165
Huguet, Adolphus H., Baton Rouge, La. Lock-hinge.	232,128	Sept. 14	299	84	18	581
Hugunin, William P., et al. (See Pihlgren, Konrad T., assignor.)						
Hulbert, Thomas H. (See Hill and Hulbert.)						
Hulburd, Hiland G., Placerville, Cal. Preserving evaporated fruits and vegetables.	228,198	June 1	43	17	17	1234
Hulings, William H., Menlo Park, Cal. Horseshoe.	228,533	June 8	446	121	17	1306
Hulings, William H., Menlo Park, Cal. Harrow.	234,576	Nov. 16	931	250	18	1158
Hull, John S., Baltimore, Md. Soldering-iron heater.	226,753	Apr. 20	718	200	17	887
Hull, John S., Baltimore, Md. Apparatus for supplying hydrocarbon oils to buildings.	229,316	June 29	1396	382	17	1469
Hull, John S., Baltimore, Md. Can-soldering machine.	232,503	Sept. 21	764	211	18	665
Hull, John S., Baltimore, Md. Hydrocarbon-burner.	234,282	Nov. 9	560	153	18	1088
Hull, L. L. (See Hollister, Orange E., assignor.)						
Hull, Willard E., assignor of one-half to J. Jacques, Watertown, Conn. Bandage.	236,033	Dec. 28	1210	18	18	1505
Hull, Wolcott A., New York, N. Y. Inkstand.	226,317	Apr. 6	192	56	17	781
Hume, Robert D. (See West and Hume.)						
Hummel, Ferdinand, Sr., Paducah, Ky. Breech-loading fire-arm.	235,771	Dec. 21	871	243	18	1441
Hummer, Eli H., and J. S. Gemmill, York, Pa. Service-pipe box.	225,385	Mar. 9	478	139	17	549
Humphreville, Henry, Mountville, assignor of one-half interest to R. M. Slaymaker, Lancaster, Pa. Spray-dampener.	225,056	Mar. 2	97	27	17	472
Humphrey, Henry C., New York, assignor to F. O. Matthiessen, Irvington, and W. A. Wiechers, New York, N. Y. Process of economically obtaining starch and glucose from corn.	231,804	Aug. 31	1407	18	18	500
Humphrey, Moses, Concord, N. H. Machine for dropping corn and phosphates.	227,359	May 11	324	94, 95	17	1042
Humphrey, Sarah B. (See Johnston and Humphrey, assignors.)						
Humphrey, William H. (See Johnston and Humphrey.)						
Humphreys, Andrew C., Urbana, Ohio. Device for purifying liquids.	232,622	Oct. 5	32	9	18	744

*Alphabetical list of patentees—Continued.*

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Humphreys, Charles I., assignor to M. Bray, Boston, Mass. Sheet-metal lacing-hook .....	229,253	June 29	1316	363	17	1459
Hundley, John C., Knap of Reeds, N. C. Process and apparatus for ordering leaf-tobacco ..	224,290	Feb. 10	369	105	17	284
Hungerford, George S. (See Hungerford George W. and G. S.)						
Hungerford, George W. and G. S., New York, N. Y. Machine for cleaning, scouring, and polishing coffee, &c. ....	232,504	Sept. 21	765	212	18	665
Hunn, Robert T., Batavia, N. Y. Machine for repairing wagon-wheels .....	235,055	Nov. 30	1538	414	18	1271
Hunsaker, George T., Carthage, Ill. Sealing fruit-cans .....	235,879	Dec. 28	1022	283	18	1475
Hunt, Adam, Cleveland, Ohio. Safety bridge-gate .....	228,640	June 8	580	154	17	1326
Hunt, Alfred E., Nashua, N. H. Fire-brick .....	228,901	June 15	916	.....	17	1384
Hunt, David, Jr. (See Hunt, Walter S., assignor.)						
Hunt, David, Jr., et al. (See Proctor, David R., assignor.)						
Hunt, David, Jr., Boston, Mass. Fabric for carpet-linings .....	229,535	July 6	33	9	18	13
Hunt, Edmund S., Weymouth, Mass. Device for lighting fire-works .....	228,760	June 15	746	206	17	1361
Hunt, Edmund S., Weymouth, Mass. Fire-works .....	229,890	July 13	448	124	18	83
Hunt, Edwin R., assignor to Winchester Repeating Arms Company, New Haven, Conn. Apparatus for annealing cartridge-shells .....	233,250	Oct. 12	558	154	18	838
Hunt, Franklin B., Richmond, Ind., assignor of one-half interest to D. B. Robbins. Sulky-plow .....	232,505	Sept. 21	766	212	18	665
Hunt, Henry C., assignor of one-half interest to A. J. Halsey, Newark, N. J. Steam-engine ..	233,622	Oct. 26	1040	{ 289 290 }	18	935
Hunt, Homer P., Providence, assignor to G. F. Wilson, East Providence, R. I. Carriage-curtain fastener .....	228,536	June 8	448	122	17	1307
Hunt, Simon B., New York, N. Y. Apparatus for separating from compressed air the water of condensation .....	223,648	Jan. 20	542	146	17	115
Hunt, Simon B., New York, N. Y. Pneumatic apparatus for economizing compressed air ..	223,649	Jan. 20	543	146	17	116
Hunt, Theodore. (See Caffall, Robert M., assignor.)						
Hunt, Thomas S., Montreal, Quebec, Canada, and J. Douglas, Jr., Phoenixville, Pa. Extracting copper from ores .....	227,902	May 25	960	.....	17	1166
Hunt, Walter S., Providence, R. I., assignor of one-fourth interest to D. Hunt, Jr., Boston, Mass. Fabric for carpet-linings, &c. ....	227,109	May 4	21	7	17	982
Hunt, William L., Westminster, England. Theater appliance. (Reissue) .....	9,374	Sept. 7	272	75	18	569
Hunter, Frederick G., Moncton, New Brunswick. Card-holder .....	230,016	July 13	590	163	18	105
Hunter, George W., assignor to himself, H. M. Baker, and J. H. Vermilya, Washington, D. C. Sewing-machine .....	223,223	Jan. 6	24	6	17	7
Hunter, George W., Washington, D. C., assignor of one-half interest to A. Rex, Philadelphia, Pa. Stop mechanism for sewing-machines .....	230,941	Aug. 10	406	117	18	320
Hunter, George W., Philadelphia, Pa. Sewing-machine .....	232,971	Oct. 5	214	58	18	773
Hunter, George W., Merced, Cal. Thill-coupling .....	235,438	Dec. 14	469	133	18	1367
Hunter, John M., Morristown, N. J. Boot and shoe. (Reissue) .....	9,034	Jan. 6	268	70	17	49
Hunter, John M., Morristown, N. J. Boot and shoe. (Reissue) .....	9,035	Jan. 6	270	70	17	49
Hunter, Silas C., Charlotte, N. C. Cultivator .....	235,087	Dec. 7	30	9	18	1286
Hunter, Thomas, Toronto, Ontario, Canada. Baker's oven .....	232,184	Sept. 14	370	{ 102 103 }	18	593
Hunter, William S., Belleville, assignor of one-half interest to J. K. Fuller, Colborne, Ontario, Canada. Stock-car .....	231,425	Aug. 24	959	270	18	423
Huntley, Byron E., et al. (See Pridmore, Henry E., assignor)						
Huntley, Holcomb & Heine. (See Hamper, Henry, assignor.)						
Huntley, Holcomb & Heine. (See Holcomb, Abel P., assignor.)						
Huntley, Holcomb & Heine. (See Huntley and Heine, assignors.)						
Huntley, William W., and A. Heine, assignors to Huntley, Holcomb & Heine, Silver Creek, N. Y. Flour-sieve .....	232,507	Sept. 21	769	212	18	666
Huntoon, Hazen P., Cambridgeport, Mass. Pipe-tongs .....	230,634	Aug. 3	44	13	18	254
Huot, Pierre, et al. (See Brisac, Solomon, assignor.)						
Hüpfel, John C. G., New York, N. Y. Apparatus for filling casks and bottles under pressure .....	228,639	June 8	579	153	17	1325
Huppelsberg, Frederick W., assignor to Steinborn & Huppelsberg, Brooklyn, N. Y. Chenille ..	224,438	Feb. 10	538	155	17	311
Huppelsberg, Friedrich W., assignor to Steinborn & Huppelsberg, Brooklyn, N. Y. Chenille-twisting machine .....	227,788	May 18	813	230	17	1131
Hurd, George H., Cleveland, Ohio. Dental jaw-brace .....	225,525	Mar. 16	647	188	17	588
Hurd, George H., Cleveland, Ohio. Apparatus for administering nitrous-oxide gas .....	234,672	Nov. 23	1073	289	18	1188
Hurd, Hutson R., Cleveland, Ohio. Gas-inhaler .....	234,479	Nov. 16	813	218	18	1139
Hurd, John M., and J. W. Mosher, Auburn, assignors to J. T. Knapp, Cato, N. Y. Washing-machine .....	233,763	Oct. 26	1201	333	18	962
Hurd, Joseph A. (See Taylor, George, assignor.)						
Hurd, Martin J. (See Lockie, Andrew J., assignor.)						
Hurd, Warren, and S. B. Brown, Watkins, N. Y. Wall-paper exhibitor .....	230,780	Aug. 3	208	60, 61	18	280
Hurd, William C., New York, N. Y. Switch-rail chair .....	223,591	Jan. 13	467	127	17	94
Hurd, William G., Hornellsville, N. Y. Car-coupling tool .....	227,690	May 18	701	198	17	1113
Hurford, Alexander. (See Myers and Mountain, assignors.)						
Hurlburt, Charles T. (See Barnett and Hurlburt.)						
Hurlburt, Charles B., Racine, Wis. End-board fastening for wagons .....	232,129	Sept. 14	300	85	18	581
Hurlburt, Samuel G., Elyria, Ohio. Farm-gate .....	224,915	Feb. 24	1110	317	17	431
Hurley, Edward, et al. (See King, Sidney B., assignor.)						
Hurley, Thomas, Brooklyn, N. Y. Dwelling-house .....	229,416	June 29	1512	417	17	1485
Hurt, Alden B. (See Herndon, George P., assignor.)						
Hurtle, Fredric M., Dowagiac, Mich. Sand-band .....	228,761	June 15	747	206	17	1361
Husak, Rudolf. (See Kwaysser and Husak.)						
Huse, William E., Brookfield, Mass. Cattle-stanchion .....	227,256	May 4	197	57	17	1010
Huss, Oscar E. (See Caldwell and Huss.)						
Hussey, Charles A., assignor of one-half interest to A. S. Dodd, New York, N. Y. Dynamo-electric machine .....	233,350	Oct. 19	705	192	18	869
Hussey, Sylvanus, Gowanda, N. Y. Rock-drill .....	232,609	Sept. 28	885	{ 244 245 }	18	693
Huston, David. (See Goodwin, Wilbur, assignor.)						
Huston, David, assignor to himself, D. B. Stedman, and R. Vose, Jr., Boston, Mass. Window-shutter .....	226,318	Apr. 6	193	57	17	781
Huston, David, assignor, by mesne assignments, to Huston Ships Berth Company, Boston, Mass. Self-leveling berth for vessels. (Reissue) .....	9,224	June 1	303	85, 86	17	1275
Huston, David, Boston, Mass. Self-leveling berth for vessels .....	234,673	Nov. 23	1075	290	18	1188
Huston, James S. (See Ringrose, Jesse W., assignor.)						
Huston Ships Berth Company. (See Huston, David, assignor.) (Reissue.)						
Hutchins, Abner B., Brooklyn, N. Y. Lamp-shade holder .....	229,825	July 13	376	104	18	72
Hutchins, George W., assignor to T. H. Fletcher and G. W. Tash, Dover, N. H. Lasting-jack .....	232,506	Sept. 21	769	212	18	666



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Hutchins, James K., New Haven, (Newark P. O.,) Mich. Drag-saw.....	227,110	May 4	22	7	17	982
Hutchins, Levi F., Dayton, Ohio. Thill-support.....	233,858	Nov. 2	40	10	18	993
Hutchins, Thomas H. (See Hutchins, William J., assignor.)						
Hutchins, William J., assignor to himself and T. H. Hutchins, Joliet, Ill. Mechanical telephone.....	228,817	June 15	823	225	17	1371
Hutchinson, Charles G., Chicago, Ill. Bottling-machine.....	225,475	Mar. 16	591	172	17	578
Hutchinson, Charles G., Chicago, Ill. Bottle-stopper.....	225,476	Mar. 16	593	172	17	579
Hutchinson, Edward. (See Higginbottom and Hutchinson.)						
Hutchinson, Jesse L., Baltimore, Md. Foul-air trap for wash-basins.....	226,519	Apr. 13	441	123	17	831
Hutchinson, John A., Chicago, Ill. Machine for forging horseshoe-nails.....	232,353	Sept. 21	583	160 161	18	635
Hutchinson, John H., Whitney, Tex. Portable extension-top for stoves.....	234,575	Nov. 16	930	249	18	1158
Hutchinson, Robert H., New York, N. Y. Shirt.....	230,551	July 27	1259	355	18	228
Hudson, Allen T., Naperville, assignor of one-half interest to A. Royce, Dupage, Ill. Shaft and tumbling-rod coupling.....	229,043	June 22	1088	296	17	1417
Huttner, Henry J., San Francisco, Cal. Furnace for roasting quicksilver ores.....	234,985	Nov. 30	1457	392	18	1258
Hutton & Bliss. (See Hutton, John, assignor.)						
Hutton, John, assignor to Hutton & Bliss, Newark, N. J. Button shoe or boot.....	234,283	Nov. 9	562	153	18	1088
Hutton, Noah M., Quincy, Ill. Blind-slat operator.....	227,532	May 11	512	147	17	1073
Hutton, Noah M., Quincy, Ill. Shutter-worker.....	227,533	May 11	512	147	17	1073
Huy, Jacob, Whistler, Ala. Pile-driver. (Reissue).....	9,057	Jan. 27	936	250	17	189
Huy, Jacob, Whistler, Ala. Stock-car.....	226,073	Mar. 30	1310	369	17	720
Huyler, John S. (See Lambert and Huyler.)						
Hyams, Isaac A., Pittsburg, Pa. Carbureter.....	225,931	Mar. 30	1136	323 324	17	693
Hyatt, Charles M. (See Prunyn and Hyatt.)						
Hyatt, John W., and J. H. Stevens, Newark, N. J. Production of articles by solidifying leather pulp.....	228,463	June 8	357	-----	17	1294
Hyatt, John W., Newark, N. J. Apparatus for drying glue and other substances.....	231,046	Aug. 10	521	146	18	338
Hyatt, John W., Newark, N. J., assignor to Celluloid Manufacturing Company, New York, N. Y. Manufacture of celluloid.....	232,037	Sept. 7	195	53	18	556
Hyatt, John W., Newark, N. J., assignor to Embossing Company, Albany, N. Y. Machine for the manufacture of slate-pencils.....	232,720	Sept. 28	1012	278	18	713
Hyatt, John W., Newark, N. J., assignor to Embossing Company, Albany, N. Y. Slate-pencil sharpener.....	232,721	Sept. 28	1013	279	18	714
Hyatt, John W., C. S. Lockwood, and J. H. Stevens, assignors to Bonsilate Company, Newark, N. J. Factitious material to imitate ivory, horn, &c.....	226,034	Dec. 28	1211	-----	18	1505
Hyde, Albert G., New York, N. Y. Air-gun.....	227,789	May 18	815	230	17	1131
Hyde, Chauncey D., Pitcher, N. Y. Folding rocking-chair.....	224,690	Feb. 17	832	236	17	371
Hyde, Elwin R., Dalton, Mass. Belt-fastener.....	231,671	Aug. 31	1244	350	18	474
Hyde, Thomas W., Bath, Me. Windlass.....	231,047	Aug. 10	523	147	18	338
Hydraulic Elevator Company. (See Hale, William E., assignor.)						
Hydraulic Elevator Company. (See Merrill, Orson E., assignor.)						
Hyer, Garitt J., Clinton, Ill. Check-rod machine.....	234,780	Nov. 23	1196	323 324	18	1208
Hyslop, John, Jr., assignor to Abington Tack and Machine Association, Abington, Mass. Shoe-nail.....	231,322	Aug. 17	844	237	18	397
Ibbotson, Alfred B., Florence, Italy, and F. J. Talbot, Sheffield, England. Screw-bolt and nut.....	226,450	Apr. 13	352	101	17	818
Idc, Ferdinand F., Springfield, Ill. Apparatus for adjusting balance-wheels of watches.....	230,781	Aug. 3	209	61	18	281
Igon, Jackson D. (See Whitman and Igon.)						
Iles, William R., Fairmount, Ill. Check-row attachment for corn-planters.....	223,288	Jan. 6	98	24	17	19
Iliff, Martha A., Cincinnati, Ohio. Guide for pen-holders.....	234,781	Nov. 23	1199	324	18	1208
Illing, Charles, Jefferson, Wis. Fume-pipe for cooking-stoves.....	222,075	May 25	1161	331	17	1197
Imhaeuser, Elise. (See Imhaeuser, William, assignor.) (Reissue.)						
Imhaeuser, William, assignor to E. Imhaeuser, Brooklyn, N. Y. Watchman's time-detector. (Reissue).....	9,387	Sept. 28	1109	304	18	730
Imhorst, Ferdinand, Baltimore, Md. Machine for unloading vessels.....	223,350	Jan. 6	165	43	17	30
Imhorst, Ferdinand, Baltimore, Md. Construction of freighting-vessels.....	224,691	Feb. 17	833	236 237	17	371
Imhorst, Ferdinand, Baltimore, Md. Machine for handling articles in bulk.....	231,721	Aug. 31	1301	366	18	483
Imhorst, Ferdinand, Baltimore, Md. Machine for handling articles in bulk.....	233,623	Oct. 26	1044	290 291	18	935
Imlay, William L., Camden, N. J. Apparatus for separating ores.....	228,719	June 8	673	186	17	1341
Ingalls, Charles L., assignor of three-fourths interest to J. A. Coram, F. G. Sargent, and N. Crosby, Lowell, Mass. Soap-press.....	225,287	Mar. 9	372	109	17	531
Ingalls, Joshua K., New York, N. Y. Game-board.....	226,615	Apr. 20	567	158	17	863
Ingersoll, Artemidorus, and C. L. Ayerst, Waupun, Wis.; said Ayerst assignor to said Ingersoll. Method of and device for sealing vessels.....	234,674	Nov. 23	1076	290	18	1189
Ingersoll, William H., et al. (See Fairbairn, William U., assignor.)						
Ingraham, Edward, Philadelphia, Pa. Shedding mechanism for looms.....	232,038	Sept. 7	196	53	18	556
Ingram, James E., et al. (See Knapp, George W., assignor.)						
Ingram, Porter W., and E. Clark, Steamboat Rock, Iowa. Sash-fastener.....	223,351	Jan. 6	166	43	17	30
Inman, David W., Stelvideo, Ohio. Running-gear for vehicles.....	223,515	Jan. 13	378	100	17	79
Innis, Aaron, Poughkeepsie, N. Y. Dye-wood chipper.....	233,764	Oct. 26	1202	333	18	963
Innis, Aaron, Poughkeepsie, N. Y. Dye-wood cutter.....	233,765	Oct. 26	1202	334	18	963
Innis, George, Newbury, and W. R. Whitmore, Newburyport, Mass. Type-sifter.....	228,997	June 22	1043	284	17	1411
Innis, William J., Oil City, Pa. Steam-engine.....	230,943	Aug. 10	408	118	18	321
Innis, William J., Oil City, Pa. Coupling.....	232,722	Sept. 28	1014	279	18	714
Innis, William J., Oil City, Pa. Balanced valve for steam-engines.....	233,351	Oct. 19	706	193	18	869
Inskeep, Carey, Ottumwa, Iowa. Hair-pin.....	231,049	Aug. 10	525	147	18	330
International Railway Supply Company. (See Kendall, Orson B., assignor.)						
International Railway Supply Company. (See Stock, George B., assignor.)						
International Submarine Company. (See Piko, Charles F., assignor.)						
Ioor, John P., Indianapolis, Ind. Stove-pipe-elbow-flanging machine.....	234,191	Nov. 9	448	121	18	1060
Ireland, George H., Springfield, Mass. Mechanical musical instrument.....	231,323	Aug. 17	844	237	18	397
Ireland, Richard B., Trenton, and W. H. McDonald, Newark, N. J. Signaling apparatus for railways.....	224,692	Feb. 17	834	237	17	371
Ireland, Richard B., Trenton, N. J. Railway-signal.....	225,137	Mar. 2	181	51	17	487
Ireland, Thomas A., Cincinnati, Ohio. Sash lock and lifter.....	226,173	Apr. 6	30	8	17	751
Ireland, William H. (See Chamberlain, Dexter H., assignor.)						
Ireland, William H. (See Merritt, Henry W., assignor.)						
Irgens, Jorgen, Bergen, Norway. Fish-hook.....	231,912	Sept. 7	41	9	18	531
Irion, Matthew, Louisville, Ky. Grave-protector.....	227,257	May 4	198	58	17	1010



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Iron Telegraph Pole Company. (See Milliken, William H., assignor.)						
Irvine, Arthur T., Titusville, Pa. Gate-valve.	232,893	Oct. 5	119	31	18	757
Irwin, John H., Philadelphia, Pa. Telephone-transmitter.	223,352	Jan. 6	166	44	17	30
Irwin, John H., Morton, Pa. Telephone-transmitter.	225,388	Mar. 9	480	140	17	550
Irwin, John H., Morton, Pa. Stove.	226,520	Apr. 13	441	{ 123 124 }	17	831
Irwin, John H., Morton, Pa. Furnace.	227,535	May 11	515	149	17	1074
Irwin, John H., Morton, Pa. Lamp-stove.	228,762	June 15	748	206	17	1361
Irwin, John H., Morton, Pa. Domestic oven for lamp-stoves.	230,635	Aug. 3	44	13	18	254
Irwin, John H., Morton, Pa. Lamp-stove.	230,636	Aug. 3	47	14	18	254
Irwin, John H., Morton, Pa. Telephone.	233,251	Oct. 12	560	155	18	838
Irwin, John H., Morton, Pa. Telephone.	234,579	Nov. 16	952	{ 251 252 }	18	1161
Irwin, John M., Edina, Mo. Feed-trough for stock.	225,057	Mar. 2	97	27	17	472
Irwin, Robert W., assignor of one-half interest to A. T. Lavlett, St. Francisville, Ill. Spring-bumper.	232,723	Sept. 28	1015	279	18	714
Irwin, Robert W., assignor of one-half to A. T. Lovellett, St. Francisville, Ill. Axle-box.	235,772	Dec. 21	872	244	18	1441
Irwin, Thomas W., Allegheny, and G. K. Reber, Pittsburg, assignors to Solderless Standing Seam Conductor Company, (limited), Allegheny, Pa. Water-conductor. (Reissue).	9,070	Feb. 10	609	176	17	323
Isaac, John C., Cornwall on the Hudson, N. Y. Corner-stone for boundary-lines.	232,972	Oct. 5	215	58	18	773
Isbell, George A. (See Fellows, Isbell, and Godard.)						
Isbell, Thomas D., Ukiah, Cal. Middlings-purifier.	225,753	Mar. 23	926	268	17	645
Isbister, John H., et al. (See Kenyon, John, assignor.)						
Isbister, Tunis, et al. (See Kenyon, John, assignor.)						
Isch, Stephen, assignor of one-half interest to M. Miller, Buffalo, N. Y. Mechanical movement.	224,916	Feb. 24	1111	318	17	432
Iseminger, Daniel H., Bloomington, Ill. Bill or letter file.	227,112	May 4	23	7	17	982
Isham, Charles C. (See Reed, Samuel, assignor.)						
Iske, Albert. (See Iske, Anthony and A.)						
Iske, Anthony, assignor to I. L. Landis, Lancaster, Pa. Copy-holder.	225,386	Mar. 9	479	139	17	549
Iske, Anthony and A., assignors of one-half interest to I. L. Landis, Lancaster, Pa. Meat and vegetable slicer.	225,387	Mar. 9	479	140	17	549
Isko, Anthony, assignor to I. L. Landis, Lancaster, Pa. Swinging treadle for sewing-machines.	232,130	Sept. 14	301	85	18	582
Iske, Anthony, Lancaster, Pa. Implement for spraying water.	232,131	Sept. 14	302	85	18	582
Iske, Anthony, Lancaster, Pa. Secretary-table.	233,766	Oct. 26	1203	334	18	963
Israel, Alexander C., Kimmswick, assignor of one-half interest to A. T. Harlow, St. Louis, Mo. Nut-lock washer.	227,111	May 4	22	7	17	982
Israel, John, Dayton, Ohio. Burglar-alarm.	224,017	Feb. 3	53	16	17	212
Ives, Blakeslee & Co. (See Ives, Edward R., assignor.) (Reissue.)						
Ives, Edward R., et al. (See Hotchkiss, Charles A., assignor.)						
Ives, Edward R., Bridgeport, Conn., assignor to Ives, Blakeslee & Co. Automatic toy. (Reissue.)	9,370	Sept. 7	265	73	18	568
Ives, Ellsworth D., Norfolk, Conn. Axle-arm for vehicles.	233,932	Nov. 2	117	32	18	1006
Ives, Henry, Batavia, N. Y. Cultivator.	231,582	Aug. 24	1132	317	18	450
Ives, James, Mount Carmel, Conn. Fastener for carriage-aprons, &c.	231,048	Aug. 10	524	147	18	338
Ives, Joseph S., New York, N. Y. Ticket-reel.	227,534	May 11	513	148	17	1073
Iwan, Henry and L., Roberts, Ill. Draft attachment to plows.	224,917	Feb. 24	1112	318	17	432
Iwan, Henry and L., Roberts, Ill. Ditching-hoe.	230,130	July 20	733	205	18	137
Iwan, Louis. (See Iwan, Henry and L.)						
Jaccard, David H., San Francisco, Cal. Needle-threader.	232,185	Sept. 14	371	103	18	593
Jack, John G. (See Brown, Clark J., assignor.)						
Jackman, Andrew H. (See Scott, Jacob R., assignor.)						
Jackman, Enoch, Concord, and F. Flanders, Franklin, N. H. Manufacture of latches for knitting-machine needles.	224,541	Feb. 17	658	188	17	342
Jackman, Enoch, Concord, and F. Flanders, Franklin, N. H. Manufacture of knitting-machine needles.	224,542	Feb. 17	659	189	17	342
Jackson, Amariah W., Indianapolis, Ind. Spring bed-bottom.	224,337	Feb. 10	424	121	17	292
Jackson, Andrew T., Cotton's Store, Ala. Chimney flue and shield.	226,074	Mar. 30	1312	370	17	720
Jackson, Caleb H., Harrisburg, Pa. Railway safety-switch apparatus.	223,516	Jan. 13	379	101	17	79
Jackson, Caleb H., Harrisburg, Pa. Foundation for switch and signal connections.	223,650	Jan. 20	544	147	17	116
Jackson, Caleb H., and F. S. Guerber, assignors to Toney and Buchanan Interlocking Switch Company, Harrisburg, Pa. Deflection-stand.	224,540	Feb. 17	657	188	17	342
Jackson, Caleb H., Harrisburg, Pa. Railway-signal.	230,418	July 27	1105	311	18	202
Jackson, Charles A., et al. (See Prichard, Joseph H., assignor.)						
Jackson, Charles P., Chicago, Ill. Refrigerator.	231,324	Aug. 17	845	238	18	397
Jackson, Francis T., assignor to J. L. Stanage, St. Louis, Mo. Table-leaf support.	232,973	Oct. 5	216	58	18	774
Jackson, Frederick J., Tarrytown, and W. H. Wright, Saugerties, N. Y. Wash-boiler.	231,584	Aug. 24	1136	318	18	450
Jackson, John. (See Weir, Daniel P., assignor.)						
Jackson, John Q., et al. (See Prichard, Joseph H., assignor.)						
Jackson, Moses T., Montrose, Pa. Vehicle pole and shaft.	225,221	Mar. 9	283	81	17	518
Jackson, R. (See Lidren, Christopher, assignor.)						
Jackson, Samuel P., Manchester, N. H. Sash-fastener.	228,199	June 1	43	14	17	1234
Jackson, Thomas M., Clarksburg, W. Va. Surveying-instrument.	234,284	Nov. 9	562	153	18	1088
Jackson, Walter M. (See Sloper, Byron, assignor.)						
Jackson, Walter M., Providence, R. I. Carbureting gas and air.	228,357	June 1	221	-----	17	1263
Jackson, William B., High Shoals, Ga. Wagon-brake.	230,782	Aug. 3	210	61	18	281
Jackson, William B., High Shoals, Ga. Wagon-brake.	235,773	Dec. 21	873	244	18	1442
Jacob, Charles M., Paris, France. Composition for coating surfaces.	234,675	Nov. 23	1078	-----	18	1189
Jacob, Frederick, Newark, N. J. Sewing-machine.	230,020	July 13	593	{ 164 165 }	18	106
Jacob, William C., Dallas, Iowa. Windmill.	234,580	Nov. 16	954	252	18	1162
Jacobi, Emil, assignor to F. Gutekunst, Philadelphia, Pa. Producing phototype-plates.	225,389	Mar. 9	482	-----	17	550
Jacobs, Felix A., et al. (See Wilson, Jacob W., assignor.) (Reissue.)						
Jacobs, Henry. (See Jacobs, John, assignor.)						
Jacobs, Henry, Sandusky, Ohio. Neck-yoke.	225,058	Mar. 2	98	27	17	473
Jacobs, Henry, Sandusky, Ohio. Neck-yoke ring.	226,662	Apr. 20	623	173	17	872
Jacobs, Henry, Toledo, Ohio. Regulator for electric lights.	233,416	Oct. 19	788	217	18	883
Jacobs, Henry M., Waynesburg, Pa. Wagon-seat support.	233,933	Nov. 2	118	33	18	1006
Jacobs, Hiram S., assignor of one-half interest to A. P. Brayton, San Francisco, Cal. Dis-charger for amalgamating-pans.	232,132	Sept. 14	303	85	18	582
Jacobs, Jacob, New York, N. Y. Illuminating roofing-plate.	225,837	Mar. 23	1015	292	17	660
Jacobs, Jacob, New York, N. Y. Illuminating-tile.	231,805	Aug. 31	1408	397	18	500
Jacobs, John, Springfield, assignor to H. Jacobs, Sandusky, Ohio. Neck-yoke center-swivel.	225,059	Mar. 2	99	27, 28	17	473

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Jacobus & Nimick Manufacturing Company. (See Mathes, Philip, assignor.)						
Jacques, Edward K., <i>et al.</i> (See Ambler, Arthur A., assignor.)						
Jacques, George S., assignor of one-half interest to C. L. Morrow, Detroit, Mich. Merchandise-car.	229,135	June 22	1190	325	17	1432
Jacques, Jean. (See Hull, Willard E., assignor.)						
Jacques, Jean, Waterbury, Conn. Surgical bandage.	236,035	Dec. 28	1212	334	18	1505
Jacques, William W., Baltimore, Md. Insulating compound for telegraph-wires.	227,168	May 4	94	26	17	993
Jacques, William W., Baltimore, Md. Insulating compound.	231,583	Aug. 24	1134	317	18	450
Jadwin, Orlando H., New York, N. Y. Propelling cars.	223,592	Jan. 13	469	127	17	94
Jaeger, Adolph, Bremerhaven, Germany. Fog-horn.	229,044	June 22	1089	296	17	1418
Jaeger, Gustav L., New York, N. Y. Low-water indicator.	230,282	July 20	913	260	18	165
Jaeger, Gustav L., New York, N. Y. Show-box for laces.	232,273	Sept. 14	476	132	18	611
Jakel, John, assignor to himself and L. Forkel, Detroit, Mich. Malt-kiln.	226,860	Apr. 27	852	236	17	921
James, Charles G., Petaluma, Cal. Stock-car.	234,036	Nov. 2	261	71	18	1029
James, Charles J., <i>et al.</i> (See Wheelwright, Sherburn, assignor.)						
James, James D., Mineral Point, Wis. Sickle-bar for harvesters.	229,417	June 29	1513	417	17	1485
James, John H. (See Workman and James.)						
James, Joseph A. (See Cole, Charles L., assignor.)						
James, Spencer T., Franklin, Ga. Cultivator.	227,360	May 11	325	95	17	1042
James, William A., St. Louis, Mo. Sulky-plow.	224,188	Feb. 3	249	72	17	244
James, William A., St. Louis, Mo. Sulky-plow. (Reissue.)	9,501	Dec. 21	962	268	18	1458
Jamieson, Henry A., Brooklyn, N. Y. Pump.	229,612	July 6	120	32	18	26
Jamieson, Henry A., Brooklyn, N. Y. Steam-piston.	229,613	July 6	121	33	18	26
Jamieson, M. H. (See Rice, Henry C., assignor.)						
Jamin, Jules C., Paris, France. Electric lamp.	232,610	Sept. 28	887	245	18	693
Jamison, John, Turner's Falls, Mass. Jacket-stretcher for paper-machines.	225,609	Mar. 16	743	219	17	606
Jamison, John P., Cambridge, Mass. Machine for forming ornamental designs upon wood.	232,823	Oct. 5	34	9, 10	18	744
Jankowitch, Jeffrem, assignor to O. Selleck, New York, N. Y. Embroidering attachment for sewing-machines.	233,767	Oct. 26	1204	334	18	963
Janney, Alfred A., Montgomery, Ala. Cotton-press.	227,013	Apr. 27	1037	288	17	950
Jansen, Diederich W., Joplin, Mo. Furnace for smelting ores.	228,818	June 15	825	225	17	1371
Jansen, Edmund, assignor to A. Böntgen and L. Sabin, Solingen, Germany. Clasp-knife.	229,706	July 6	222	61	18	41
Janssen, Gustave, St. Louis, Mo., and L. Baugh, Jr., East St. Louis, Ill. Machine for making fertilizers.	228,641	June 8	581	154	17	1326
Janssen, Henri. (See Franz and Janssen.)						
Janssen, Pierre, New York, N. Y. Window-blind.	235,151	Dec. 7	110	32	18	1299
Japs, William D., Watertown, Minn. Sulky-plow.	225,138	Mar. 2	182	51	17	487
Jaques, David L., Cleveland, Ohio. Window-blind.	230,944	Aug. 10	409	118	18	321
Jaques, W. H. C., <i>et al.</i> (See Glenn, Lawrence, assignor.)						
Jardino, James J., New Haven, Conn. Blind-slat retainer.	224,918	Feb. 24	1113	318	17	432
Jarecki, Charles, Erie, Pa. Oil-saver for oil-wells.	224,090	Feb. 3	143	40	17	227
Jarecki, Frederick, Erie, Pa. Service-box for gas and water pipes.	230,704	Aug. 3	125	36	18	266
Jarecki Manufacturing Company. (See Morse, Thomas G., assignor.)						
Jarisch, John. (See Klary, Bonifacius, assignor.)						
Jarman, John N., Peacher's Mills, Tenn. Fruit-gatherer.	225,610	Mar. 16	744	219	17	606
Jarves, Deming, Detroit, Mich. Apparatus for treating animal matter.	233,417	Oct. 19	789	217	18	883
Jarvis, Philip, Mount Ayr, Iowa. Wagon-brake.	225,139	Mar. 2	183	51	17	487
Jasmagy, Gabriel, Brooklyn, N. Y. Pocket-book frame.	227,258	May 4	199	58	17	1010
Jasmagy, Gabriel, assignor to himself and P. Scheer, Brooklyn, N. Y. Rotary engine.	235,246	Dec. 7	221	60	18	1317
Jasper, C. E. Friedrich. (See Donath and Jasper.)						
Jasper, William, and S. Boushey, San Francisco, Cal. Machine for the manufacture of cube-sugar.	230,131	July 20	733	205	18	137
Jay, James M., New York, N. Y. Apparatus for stretching carpets.	226,917	Apr. 27	926	258	17	932
Jay, Pierre E., New York, N. Y. Apparatus for overcoming the dead-point in crank-movements.	234,406	Nov. 16	728	196	18	1124
Jay, Pierre E., New York, N. Y. Pump.	234,407	Nov. 16	728	197	18	1125
Jay, Pierre E., New York, N. Y. Apparatus for overcoming dead-points in cranks.	235,876	Dec. 28	1018	282	18	1474
Jay, William H., assignor of one-half interest to C. Morgan, Providence, R. I. Convertible chair.	233,352	Oct. 10	707	193	18	869
Jayne, John E. (See Meritt, Richmond C., assignor.)						
Jeanne, Leon P., Woodside, and L. P. Jeanne, Greenville, N. J. Breastpin.	235,683	Dec. 21	766	218	18	1424
Jeanne, Louis P. (See Jeanne, Leon P. and L. P.)						
Jefferies, James E., Yeo Bank, Congresbury, England. Composition printing-block.	231,491	Aug. 24	1027	.....	18	434
Jefferies, James E., Yeo Bank, Congresbury, England. Duplicate paper for producing copies.	231,672	Aug. 31	1245	.....	18	475
Jeffers, Milton C. (See French and Jeffers.)						
Jefferson, Thomas E., Boston, Mass. Plow.	230,419	July 27	1106	{ 311 312 }	18	202
Jeffery, Edward T. (See Hayes, Jeffery, and Schlacks.)						
Jeffords, John E., Philadelphia, Pa. Tea-pot.	235,247	Dec. 7	223	60	18	1317
Jeffrey, Albert D., Brooklyn, N. Y. Button.	225,288	Mar. 9	373	109	17	531
Jeffs, James, No. 43 Hanover Street, Middlesex County, Great Britain. Machinery and apparatus for glazing or for coloring and glazing the surface of paper or other fabrics.	231,585	Aug. 24	1137	318	18	450
Jelliff, Charles M., New York, N. Y. Metallic self-binder for books.	228,642	June 8	582	154	17	1326
Jemison, Robert W., and P. Watson, Delta, La. Stamp-canceling device.	233,769	Oct. 26	1205	335	18	964
Jenkins, Alfred B. (See Jenkins, Charles, assignor.)						
Jenkins, Alfred B. and C., Boston, Mass. Vulcanized plastic compound.	232,974	Oct. 5	217	.....	18	774
Jenkins, Benjamin R., Conklingville, N. Y. Wash-board.	224,828	Feb. 24	1014	287	17	415
Jenkins, Charles. (See Jenkins, Alfred B. and C.)						
Jenkins, Charles, assignor of one-half interest to A. B. Jenkins, Boston, Mass. Gage-cock.	232,724	Sept. 28	1015	279	18	714
Jenkins, Charles A., Sacramento, Cal. Thrashing-machine.	231,806	Aug. 31	1409	397	18	500
Jenkins, Edward W., Norristown, Pa. Grain-binder.	233,098	Oct. 12	379	104	18	806
Jenkins, Eugene N., assignor to J. N. Russell, Chicago, Ill. Coffee-roaster.	228,076	May 25	1162	331	17	1197
Jenkins, George, <i>et al.</i> (See Westgate, Joseph D., assignor.)						
Jenkins, George O., South Abington, Mass. Machine for forming metallic shoe-shanks.	226,232	Apr. 6	98	26	17	763
Jenkins, H. N. (See Brierley, Frederick W. and W. W., assignors.)						
Jenkins, Jabez, Philadelphia, Pa. Caloric engine.	228,643	June 8	583	{ 154 155 }	17	1326
Jenkins, James B., Warren, Ill. Pipe-grapple for oil and other wells.	230,783	Aug. 3	211	62	18	281
Jenkins, Jesse, Sligo, Md. Two-wheeled carriage.	234,285	Nov. 9	564	{ 153 154 }	18	1088
Jenkins, Joel, <i>et al.</i> (See Smith, Albert M., assignor.)						
Jenkins, Joel, Mount Vernon, N. Y. Snap-hook.	229,137	June 22	1192	326	17	1433
Jenkins, Joel, Mount Vernon, N. Y. Eyeglass-hook.	231,051	Aug. 10	526	148	18	339

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Jenkins, John, Chicago, Ill. Grass-gathering attachment for lawn-mowers.....	233,516	Oct. 19	895	247	18	900
Jenkins, Joseph C. Humboldt, Tenn., assignor of one-half interest to D. T. Tripp, Water- loo, Ill. Tempering steel.....	223,738	Jan. 20	637	.....	17	131
Jenkins, Marion R. Browning, Mo. Device for stacking hay.....	235,088	Dec. 7	31	10	18	1286
Jenkins, Nicholas, New Haven, Conn. Machine for dressing and paneling stone.....	223,230	Jan. 6	25	6	17	7
Jenkins, Nicholas, New Haven, Conn. Dress-stiffener.....	225,754	Mar. 23	927	268	17	645
Jenkins, Perry S. (See Kidder and Jenkins.)						
Jenkins, William R., Jr., Philadelphia, Pa. Low-water alarm for steam-boilers.....	226,754	Apr. 20	720	200	17	887
Jenks, Abraham S. (See Everding, John, assignor.)						
Jenks, Charles W., Philadelphia, Pa. Pocket-book.....	227,691	May 18	702	199	17	1113
Jenks, Charles W., Philadelphia, Pa. Handle for pecket-books and satchels.....	227,692	May 18	702	199	17	1114
Jenks, George A. (See Jenks, James, assignor.)						
Jenks, James, assignor of one-half interest to G. A. Jenks, Detroit, Mich. Feed-water in- jector.....	233,418	Oct. 19	790	218	18	883
Jenks, M., Woodburn, assignor of one-half interest to J. W. K. McClure, Blne Mound, Ill. Photograph-burnisher.....	226,521	Apr. 13	443	124	17	832
Jenks, Stephen A. (See Morse, Cyrus B., assignor.)						
Jenks, Stephen A., et al. (See Rabbeth, Francis J., assignor.)						
Jenks, Stephen A. (See Shedd, J. Herbert, assignor.)						
Jenks, Stephen A. (See Sherman, Albert R., assignor.)						
Jenks, Stephen A., Lincoln, R. I. Hydrant.....	223,808	Jan. 27	737	198	17	157
Jenks, Stillman H., Ionia, Mich. Lubricator.....	231,426	Aug. 24	960	271	18	423
Jenks, Stillman H., Ionia, Mich. Automatic lubricator.....	232,039	Sept. 7	198	53	18	557
Jenne, D. Judson, et al. (See Kehr, Cyrus, assignor.)						
Jenne, William K., assignor to E. Remington & Sons, Ilion, N. Y. Reel for type-writing machines.....	229,707	July 6	223	61	18	41
Jennings, Abraham G. (See Jennings, Warren P., assignor.)						
Jennings, Augustus F., Detroit, Mich. Device for storing water for irrigating purposes....	229,136	June 22	1191	326	17	1433
Jennings, Charles S., New Haven, assignor to Parker & Whipple Company, West Meriden, } Conn. Reversible latch.....	231,171	Aug. 17	676	{ 190 191 }	{ 18	370
Jennings, Ebenezer, et al. (See Coyle, Charles J., assignor.)						
Jennings, George, and George, Jr., Stangate, England. Waste-water guard for water-closets.	234,287	Nov. 9	566	154	18	1089
Jennings, George, and George, Jr., Stangate, England. Water-closet.....	234,288	Nov. 9	568	{ 154 155 }	{ 18	1089
Jennings, Ralph S., Baltimore, Md. Reversible filter.....	234,408	Nov. 16	730	197	18	1125
Jennings, Warren P., assignor of one-half to A. G. Jennings, Brooklyn, N. Y. Mitt-shaping machine.....	234,286	Nov. 9	565	154	18	1089
Jennings, William A., assignor of one-half to S. R. Latta, Dyersburg, Tenn. Clevis.....	235,248	Dec. 7	224	60	18	1318
Jensen, Jens, assignor to A. C. Fish, Racine, Wis. Facing-iron for wagon-bodies.....	231,050	Aug. 10	526	147	18	339
Jentzsch, Robert B., New York, N. Y. Compound metal-working machine.....	234,037	Nov. 2	262	71	18	1029
Jernegan, Almer B. (See Howe, John, Jr., assignor.)						
Jerome, Charles C., Chicago, Ill. Valve-stem packing.....	230,132	July 20	736	206	18	138
Jerome, Charles C., Chicago, Ill. Piston-rod packing.....	230,133	July 20	737	206	18	138
Jerome & Co. (See Jerome, Samuel B., assignor.)						
Jerome & Co., et al. (See Morgan and Everts, assignors.)						
Jerome, Edgar, Albany, N. Y. Steam-pressure and water gage.....	235,774	Dec. 21	874	244	18	1442
Jerome, Henry, Cleveland, Ohio. Link-machine.....	233,768	Oct. 26	1205	334	18	963
Jerome, Samuel B., assignor to Jerome & Co., New Haven, Conn. Suspension of clock- pendulums.....	230,283	July 20	915	260	18	165
Jerrold, John E., assignor to himself, C. Hubbard, and W. F. Smith, Kansas City, Mo. Steam-boiler.....	227,536	May 11	517	149	17	1074
Jerrold, John E., Kansas City, Mo., assignor to H. C. Darby, Wyandotte, Kans. Crown- sheet support.....	232,824	Oct. 5	37	10	18	744
Jerzmanowski, Erazm J., New York, N. Y. Process of and apparatus for generating gas..	233,860	Nov. 2	41	11	18	993
Jerzmanowski, Erazm J., New York, N. Y. Producing hydrogen.....	233,861	Nov. 2	42	11	18	994
Jerzmanowski, Erazm J., New York, N. Y. Process of and apparatus for making illumi- nating-gas.....	233,862	Nov. 2	43	12	18	994
Jespersen, Carsten F., Copenhagen, Denmark. Surveying-instrument.....	231,325	Aug. 17	847	238	18	398
Jetter, Albert, et al. (See Kraengel, Frederic, assignor.)						
Jetter, Emil, et al. (See Kraengel, Frederic, assignor.)						
Jewell, John B., Carrollton, Mo. Slate-frame.....	226,319	Apr. 6	194	57	17	781
Jewell, John B., Carrollton, Mo. Shutter-worker.....	226,320	Apr. 6	194	57	17	782
Jewell, John B., Carrollton, Mo. Flue-stopper.....	231,227	Aug. 17	745	209	18	380
Jewell, William H., et al. (See Lighthall, William A., assignor.)						
Jewett & Co., Sherman S. (See Jewett, Josiah, assignor.)						
Jewett, Edgar B., Buffalo, N. Y. Combined refrigerator and sideboard.....	224,781	Feb. 24	961	{ 273 274 }	{ 17	407
Jewett, E. M. (See Burk, John J., assignor.)						
Jewett, James S. (See Moses, Walter S., assignor.)						
Jewett, Josiah, assignor to S. S. Jewett & Co., Buffalo, N. Y. Stove-grate and bearings....	236,036	Dec. 28	1213	334	18	1505
Jeyte, Edward A. (See Roehr and Jeyte.)						
J.P. Nail Company. (See Baackes, John M. E., assignor.)						
Jillson, Alonzo, assignor to J. I. Case & Co., Racine, Wis. Traction-engine.....	227,259	May 4	199	58	17	1010
Jividen, J. M. (See Hartman, Aaron B., assignor.)						
Jobbins, William F., New York, N. Y. Telegraphic and telephonic insulator.....	228,077	May 25	1163	331	17	1198
Johanson, Olof, New York, N. Y. Locket.....	228,819	June 15	826	226	17	1372
Johnen, Désiré. (See Vincent and Johnen.)						
Johns, Henry W., Brooklyn, N. Y. Compound asbestos sheet for roofing, &c.....	230,945	Aug. 10	409	.....	18	321
Johns, Henry W., Brooklyn, N. Y. Asbestos sheet for roofing, &c.....	230,946	Aug. 10	410	.....	18	321
Johns, Jacob R., Millersburg, Pa. Car-starter. (Reissue.).....	9,138	Apr. 6	257	75	17	793
Johns, J. R., et al. (See Bell, Charles S., assignor.)						
Johnson, Albert E., Oxford, Mass. Shave for making Scotch-sole edges on boots and shoes..	234,038	Nov. 2	264	72	18	1029
Johnson, Albert M., and W. H., Philadelphia, Pa. Shutter-worker.....	223,354	Jan. 6	168	44	17	31
Johnson, Alfred C., Martin, Ohio. Velocipede.....	232,825	Oct. 5	38	10	18	744
Johnson, Alfred, New Geneva, assignor of one-half interest to S. Mier, Elk Lick, Pa. Lock } for fire-arms.....	233,100	Oct. 12	381	{ 104 105 }	{ 18	807
Johnson, Alonzo, Springfield, Mass. Machine for slitting lock-nuts.....	231,492	Aug. 24	1029	289	18	434
Johnson, Alonzo, assignor of one-half to J. B. Atwood, Springfield, Mass. Car-brake.....	235,152	Dec. 7	112	32	18	1300
Johnson, Andrew, and D. Dewey, Port Andrew, Wis. Hay rake and loader.....	224,782	Feb. 24	962	274	17	407
Johnson, Arthur H., Woodland, Cal. Shoe for grain-thrashers, &c.....	225,838	Mar. 23	1016	292	17	660
Johnson, Asa, assignor of two-thirds interest to W. W. Gibbs, New York, N. Y., and A. F. Fowler, Middletown, Conn. Mechanism for transmitting motion.....	233,518	Oct. 19	900	248	18	902
Johnson, Benjamin, and W. P. Giddings, Gardiner, Mo.; said Giddings assignor to said Johnson. Fertilizer.....	234,782	Nov. 23	1200	.....	18	1203

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Johnson, Benjamin G., Providence, R. I. Toy gypsy-kettle.....	234,873	Nov. 30	1319	355	18	1234
Johnson, Benson W., Providence, R. I. Carpet-sweeper.....	228,358	June 1	222	63	17	1263
Johnson, Charles, Thorold, Ontario, Canada. Hot-water attachment for magazine-stoves.....	225,987	Mar. 30	1211	343	17	705
Johnson, Charles, Towanda, Pa. Door-hanger.....	232,828	Oct. 5	42	11	18	745
Johnson, Charles C., Springfield, Vt., assignor to S. A. Eaton. Wheelbarrow. (Reissue).....	9,323	July 27	1324	372	18	239
Johnson, Charles D. (See Wilgus and Johnson.)						
Johnson, Charles E., Boston, Mass. Lubricator for steam-engine cylinders.....	229,710	July 6	230	63	18	42
Johnson, Charles F., Jr., Owego, N. Y. Grass-seeder.....	229,826	July 13	377	104	18	72
Johnson, Daniel A., Boston, Mass. Clasp.....	233,099	Oct. 12	381	104	18	807
Johnson, Eaver E., and C. S. Moak, Sun Prairie, Wis. Windmill.....	233,353	Oct. 19	708	193	18	870
Johnson, Edward A., Ansonia, Conn. Bevel.....	228,903	June 15	918	250	17	1384
Johnson, Edward E., et al. (See Knowles, Daniel M., assignor.) (Reissue.)						
Johnson, Edward E., Painesville, Ohio. Die for edging sheet-metal strips.....	229,418	June 29	1514	418	17	1485
Johnson, Edward F., Troy, Pa. Stove-truck.....	227,016	Apr. 27	1039	289	17	950
Johnson, Elmore, Morrisville, Vt. Buckboard.....	224,338	Feb. 10	425	121	17	292
Johnson, Elmore, assignor of two-thirds interest to G. S. Blodgett and E. P. Manor, Burlington, Vt. Apparatus for sealing cans, &c.....	228,999	June 22	1045	284	17	1411
Johnson, Frank P., Eyer's Grove, Pa. Thill-coupling.....	226,755	Apr. 20	721	201	17	887
Johnson, Fred, and F. Eccleston, Nebraska City, Nebr. Well-bucket bottom.....	232,726	Sept. 28	1017	280	18	714
Johnson, George, Cincinnati, Ohio. Packing for hydraulic pistons.....	224,695	Feb. 17	836	238	17	372
Johnson, George, Cincinnati, Ohio. Hydro-pneumatic elevator.....	234,874	Nov. 30	1319	355	18	1234
Johnson, George R., assignor to J. C. Cook, Russell, Iowa. Corn-cultivator.....	225,526	Mar. 16	648	189	17	588
Johnson, Henry, Washington, D. C. Mechanical accountant-instrument.....	234,875	Nov. 30	1321	356	18	1235
Johnson, Henry C., Meadville, Pa. Bottle-stopper.....	232,404	Sept. 21	645	178	18	645
Johnson, Henry C., assignor of one-half to J. Sandham, Davenport, Iowa. Wheat-heater.....	234,130	Nov. 9	376	103	18	1056
Johnson, Henry P., San Francisco, Cal. Windmill.....	231,430	Aug. 24	964	272	18	424
Johnson, Horace, Crittenden, N. Y. Try-square.....	226,075	Mar. 30	1313	370	17	720
Johnson, Isaac W., Stratford, N. H. Self-adjusting clock-calendar.....	230,134	July 20	739	206	18	138
Johnson, Jacob, Newburyport, Mass. Time-signal.....	233,101	Oct. 12	383	105	18	807
Johnson, Job, Brooklyn, N. Y. Combined capital and base for metallic columns.....	225,060	Mar. 2	100	28	17	473
Johnson, Job, Brooklyn, N. Y. Tubular pile.....	225,061	Mar. 2	101	28	17	473
Johnson, John B. (See Prescott, Edwin, assignor.)						
Johnson, John B., Boston, Mass. Electric time-registering clock.....	223,517	Jan. 13	381	101	17	80
Johnson, John H. (See Johnson, John R. and J. H.)						
Johnson, John R. and J. H., Smyrna, Ohio. Corn-planter.....	223,353	Jan. 6	167	44	17	30
Johnson, Joseph B., Lynn, Mass., assignor, by mesne assignments, to himself and A. Fuller. } Machinery for shaping boot and shoe soles. (Reissue.)	9,245	June 8	692	{ 189 190 }	{ 17	1344
Johnson, Joseph B., Lynn, Mass. Machine for shaping the soles of boots and shoes.....	230,187	July 20	798	225	18	148
Johnson, Joseph F., and E. G. Parsons, Yokum Station, Va. Hay-rake.....	223,921	Jan. 27	876	233	17	179
Johnson, Laurin H., and N. Reynolds, Detroit, Mich. Tacker for sewing-machines.....	225,390	Mar. 9	483	{ 140 141 }	{ 17	550
Johnson, Lenson, Vincennes, Ind. Key-fastener.....	224,919	Feb. 24	1114	318	17	432
Johnson, Louis J., Elk Falls, Kans. Car-coupling.....	227,538	May 11	519	149	17	1074
Johnson, Louis K., New York, assignor to J. A. Gray, Brooklyn, N. Y. Type and space holder.....	230,784	Aug. 3	212	62	18	281
Johnson, Moses, Lockport, N. Y. Hand-truck.....	224,693	Feb. 17	835	237	17	372
Johnson, Moses, Lockport, N. Y. Hand-truck.....	224,694	Feb. 17	836	238	17	372
Johnson, Moses, Lockport, N. Y. Hand-truck.....	227,790	May 18	816	230	17	1131
Johnson, Moses, Lockport, N. Y., assignor, by mesne assignments, to C. La Dow. Plow. (Reissue).....	9,031	Jan. 6	263	69	17	48
Johnson, Moses, Lockport, N. Y., assignor, by mesne assignments, to C. La Dow. Plow. (Reissue).....	9,032	Jan. 6	264	70	17	48
Johnson, Moses, Lockport, N. Y., assignor, by mesne assignments, to C. La Dow. Rotary cultivator. (Reissue).....	9,168	Apr. 20	798	222	17	901
Johnson, Moses, Lockport, N. Y., assignor, by mesne assignments, to C. La Dow. Rotary cultivator. (Reissue).....	9,169	Apr. 20	800	223	17	901
Johnson, Moses, assignor of one-half interest to M. C. Richardson, Lockport, N. Y. Hand-truck.....	229,422	June 29	1518	419	17	1486
Johnson, Moses C., assignor to H. G. Thompson, Milford, Conn. Cutting-pliers.....	232,975	Oct. 5	218	59	18	774
Johnson, Powell, Barton, Ala. Eye-protector.....	234,039	Nov. 2	265	72	18	1029
Johnson, Richard, Madison, Ind. Starch-press.....	227,537	May 11	518	149	17	1074
Johnson, Richard A., Newnan, Ga. Cotton-cultivator.....	229,318	June 29	1398	383	17	1470
Johnson, Richard A., Newnan, Ga. Cultivator and scraper.....	232,133	Sept. 14	305	86	18	582
Johnson, Richard M., Houston, Tex. Brick-machine.....	228,969	June 15	987	{ 268 269 }	{ 17	1395
Johnson, Robert W., assignor to Seabury & Johnson, New York, N. Y. Impervious wrapping-paper.....	229,045	June 22	1090	297	17	1418
Johnson, Roice W., Fort Dodge, Iowa. Check-rowing attachment for corn-planters.....	225,986	Mar. 30	1210	{ 342 343 }	{ 17	705
Johnson, Samuel W. (See Thompson and Johnson.)						
Johnson, W. F., et al. (See Morgan, Hubert W., assignor.)						
Johnson, William, Milwaukee, Wis. Millstone-driver.....	224,291	Feb. 10	370	106	17	284
Johnson, William, Lambertville, N. J. Valve-gear for steam-engines.....	231,223	Aug. 17	746	209	18	380
Johnson, William, Lambertville, N. J. Valve-gear for steam-engines.....	231,229	Aug. 17	747	209	18	380
Johnson, William, Lambertville, N. J. Balanced valve.....	234,040	Nov. 2	266	72	18	1030
Johnson, William B., Atlanta, Ga. Machine for filing gin-saws.....	233,644	June 8	586	155	17	1327
Johnson, William E., Lanark, Ill. Fire-safe for smoke-houses.....	226,861	Apr. 27	853	237	17	921
Johnson, William F., assignor of one-third interest to E. S. Gaillard, Providence, R. I. Automatic station-indicator and advertiser.....	231,961	Sept. 7	112	28	18	541
Johnson, William H. (See Furbish, Isaiah M., assignor.)						
Johnson, William H. (See Johnson, Albert M. and W. H.)						
Johnson, William H., Delhi, N. Y., assignor of one-half interest to G. E. Marvine. Metal neck-yoke. (Reissue).....	9,366	Aug. 31	1516	424	18	517
Johnson, William H., Galveston, Ind. Automatic wagon-brake.....	227,014	Apr. 27	1037	288	17	950
Johnson, William H., assignor to Deere & Mansur Company, Moline, Ill. Corn-planter.....	231,428	Aug. 24	961	271	18	423
Johnson, William H., Moline, Ill. Seeding-machine.....	232,826	Oct. 5	39	10, 11	18	745
Johnson, William J., Boston, Mass. Drying apparatus.....	228,259	June 1	120	34	17	1245
Johnson, William J., Boston, Mass. Machine for trimming stereotype-plates.....	231,427	Aug. 24	960	271	18	423
Johnson, William J., Newton, assignor to National Manufacturing Company, Boston, Mass. Scoop-sifter.....	233,770	Oct. 26	1206	335	18	964
Johnson, William J., Boston, Mass. Drying stereotype-matrices.....	234,480	Nov. 16	814	218	18	1139
Johnson, William J., Newton, assignor to National Manufacturing Company, Boston, Mass. Strainer for tea and coffee pots.....	234,712	Nov. 23	1116	301	18	1195
Johnson, William K. (See Campbell, Charles A. J., assignor.)						



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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. g.	Vol.	Page.
Johnson, William W. C., Lewisburg, Ohio. Plant-setter.....	229,139	June 22	1193	326	17	1433
Johnston, Abner, J. Mallette, and C. Wood, Sidney Plains, N. Y. Belt-fastener.....	231,808	Aug. 31	1411	397	18	500
Johnston, Allen, Ottumwa, Iowa. Cutting-off tool for metal-screw machines.....	224,543	Feb. 17	660	189	17	342
Johnston, David M., Red Bluff, Cal. Cultivator.....	226,321	Apr. 6	195	58	17	782
Johnston, Edward H. (See Roberts, Alfred R., assignor.)						
Johnston Harvester Company. (See Cooley, Orville, assignor.)						
Johnston, Henry N., Brockport, N. Y. Gleaner and binder.....	235,775	Dec. 21	876	244	18	1442
Johnston, Horace S., and W. H. Humphrey, said Humphrey assignor to S. B. Humphrey, Tioga, Pa. Machine for drying and finishing leather and applying oil thereto.....	232,508	Sept. 21	770	213	18	666
Johnston, James R., Somersworth, N. H. Knife and fork holder.....	228,998	June 22	1044	284	17	1411
Johnston, John J., San Francisco, Cal. Soldering apparatus.....	226,404	Apr. 13	296	86	17	809
Johnston, Melville M. (See Suplee, Albert H., assignor.) (Reissue.)						
Johnston, Robert. (See Snow, Hervey D., assignor.)						
Johnston, Samuel, Brockport, N. Y. Hand-binding harvester.....	223,919	Jan. 27	873	232	17	178
Johnston, William A., Edgewater, N. Y. Treadle mechanism for dental engines.....	229,614	July 6	122	33	18	27
Johnstone, George, Philadelphia, Pa. Knitting-machine.....	229,709	July 6	226	62, 63	18	41
Johnstone, William H., Philadelphia, Pa. Manufacture of surgical splints.....	224,783	Feb. 24	963	{ 274 } { 275 }	17	408
Johnstone, William H., Philadelphia, Pa. Stiffened jacket or envelope for supporting various parts of the human frame.....	224,784	Feb. 24	969	275	17	408
Johnstone, William H., Philadelphia, Pa. Felting for surgical splints.....	226,076	Mar. 30	1313		17	720
Joint, William, Lynn, Mass. Heel-polishing machine.....	231,673	Aug. 31	1246	350	18	475
Joint, William, and E. Nicholson, Lynn, Mass. Heating wax on the thread in sewing-machines.....	232,827	Oct. 5	41	11	18	745
Jonas, Fredrick. (See Stubbs and Jonas.)						
Jones, Amanda T., Clinton, Wis. Oil-burner.....	225,839	Mar. 23	1017	293	17	660
Jones, Arthur, Martin's Ferry, Ohio. Machine for shaving hoops.....	235,250	Dec. 7	226	61	18	1318
Jones, Augustus H., Meriden, Conn. Extension-chandelier.....	225,612	Mar. 16	746	220	17	606
Jones, A. W. (See Smith, Allen H., assignor.)						
Jones, Casper M., Jr., Philadelphia, Pa. Chandelier.....	231,052	Aug. 10	527	148	18	339
Jones, Charles E., assignor of one-half interest to G. M. Tripp, Greencastle, Iowa. Check-row corn-marker.....	229,140	June 22	1194	327	17	1433
Jones, Charles E., Beloit, Wis. Expansion-pulley.....	234,876	Nov. 30	1322	356	18	1235
Jones, Charles E. and W. H., Cincinnati, Ohio. Telephone exchange system and furniture.....	234,192	Nov. 9	450	{ 121 } { 122 } { 123 }	18	1069
Jones, David. (See Murphy, Francis, assignor.)						
Jones, Edward R., Chemung, N. Y. Sweat-pad for horse-collars.....	231,326	Aug. 17	848	238	18	398
Jones, Edward R., Chemung, N. Y. Sweat-pad for horse-collars. (Reissue).....	9,519	Dec. 28	1342	368	18	1527
Jones, Edwin L. (See Blinsinger, George F., assignor.)						
Jones, Florentine A., New York, N. Y. Automatic damper-regulator.....	223,446	Jan. 13	293	77	17	65
Jones, Florentine A., New York, N. Y. Automatic damper-regulator.....	224,544	Feb. 17	661	189	17	342
Jones, Florentine A., New York, N. Y., and A. Holt, Boston, Mass. Air-valve for steam-heaters.....	227,361	May 11	326	96	17	1042
Jones, Francis, Duffield's, W. Va. Lye-conductor for barrels.....	224,698	Feb. 17	840	239	17	373
Jones, Francis W., Chicago, Ill. Duplex telegraph.....	225,140	Mar. 2	184	52	17	488
Jones, George B., et al. (See Plumer, William, assignor.)						
Jones, George M., et al. (See Blake, George W., assignor.)						
Jones, George R. G. (See Sechansen, Herman, assignor.)						
Jones, Gilbert E., New York, N. Y. Paper-folding machine.....	229,419	June 29	1515	418	17	1485
Jones, Gilbert E., New York, N. Y. Machine for folding and cutting paper or other materials.....	229,420	June 29	1516	{ 418 } { 419 }	17	1485
Jones, Gilbert E., New York, N. Y. Stereotype-block.....	230,021	July 13	594	165	18	106
Jones, Harry C., et al. (See Greene, James G., assignor.)						
Jones, J. A., et al. (See Page, John W., assignor.)						
Jones, Jacob D., assignor to himself and T. T. Wall, Winchester, Va. Grain-binder.....	235,537	Dec. 14	593	169	18	1388
Jones, James H., and R. Emerson, assignors to Emerson, Talcott & Co., Rockford, Ill. Harvester.....	228,359	June 1	223	63	17	1263
Jones, James H., Rockford, Ill. Seeding-machine.....	233,517	Oct. 19	896	{ 247 } { 248 }	18	901
Jones, James H., Rockford, Ill. Combined cultivator and seeder.....	233,934	Nov. 2	119	33	18	1007
Jones, Joel W., Bellaire, Ohio. Hoop-bending machine.....	225,222	Mar. 9	284	82	17	518
Jones, Joel W., Bellaire, Ohio. Machine for setting up barrels.....	232,134	Sept. 14	305	86	18	582
Jones, John, Lakeville, Cal. Dumping-car.....	223,922	Jan. 27	876	{ 233 } { 234 }	17	179
Jones, John, and A. Phariss, Lakeville, Cal. Brake for harvesters.....	226,451	Apr. 13	354	101	17	818
Jones, John A., Middlesbrough, Great Britain. Manufacture of iron and steel.....	225,932	Mar. 30	1138	324	17	693
Jones, John A., Mount Pleasant, Del. Drill-point for seed-drills. (Reissue).....	9,165	Apr. 20	794	221	17	900
Jones, John B., assignor of one-half interest to H. W. Shepard, Brooklyn, and R. Seaman, New York, N. Y. Coating iron with zinc and alloys of zinc.....	234,481	Nov. 16	815		18	1139
Jones, John B., assignor of one-half to H. W. Shepard, Brooklyn, and R. Seaman, New York, N. Y. Alloy for coating metals.....	234,482	Nov. 16	816		18	1139
Jones, John E., assignor to A. L. Stetson, Storm Lake, Iowa. Key-board attachment for musical instruments.....	231,723	Aug. 31	1306	367	18	484
Jones, John M., Palmyra, N. Y. Paper-cutting machine.....	234,409	Nov. 16	730	197	18	1125
Jones, John M., Wrexham, North Wales, England. Leather fluffing or grounding machine.....	235,249	Dec. 7	225	61	18	1318
Jones, John R., Clarksville, Iowa. Railway-car brake.....	225,611	Mar. 16	745	220	17	606
Jones, John T., Sussex Court-House, Va. Peanut-stripper.....	225,613	Mar. 16	747	220	17	606
Jones, Joshua W., Harrisburg, Pa. Pressing-machine for printers, book-binders, &c.....	223,355	Jan. 6	169	44, 45	17	31
Jones, Joshua W., Harrisburg, Pa. Attachment for hydraulic presses.....	224,696	Feb. 17	837	238	17	372
Jones, Joshua W., Harrisburg, Pa. Press for book-binders.....	233,625	Oct. 26	1047	291	18	936
Jones, Josiah N., Worcester, assignor of one-half interest to F. F. Raymond, 2d, Newton, Mass. Picker-lag.....	224,545	Feb. 17	664	189	17	343
Jones & Laughlins. (See Aker, John H., assignor.)						
Jones, Levin T., Baltimore, Md. Apparatus for destroying insects.....	229,317	June 29	1398	383	17	1469
Jones, Martin P., Cleveland, Ohio. Covering for steam-boilers.....	227,260	May 4	200		17	1010
Jones, Melvin A. (See Crane, Thomas, assignor.) (Reissue.)						
Jones, Milton C., Troy, N. Y. Furnace for steam-boilers.....	229,827	July 13	378	105	18	72
Jones, Myron D. (See Smith, Charles A., assignor.)						
Jones, Richard, Berkeley, England. Preserving meat in the carcass.....	231,807	Aug. 31	1410		18	500
Jones, Richard H., and J. L. Owens, assignors to Minneapolis Harvester Works, Minneapolis, Minn. Harvesting-machine.....	223,356	Jan. 6	170	45	17	31
Jones, Richard M., T. Legge, and J. Bartlett, Buxton, county of Surrey, England. Bird-target.....	235,251	Dec. 7	226	61	18	1318



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			Spec.	Dr's	Vol.	Page.
Jones, Richard W., Syracuse, N. Y. Gag-runner.....	225,391	Mar. 9	484	141	17	550
Jones, Richard W., Syracuse, N. Y. Harness-saddle.....	235,949	Dec. 28	1113	307	18	1490
Jones, Robert. (See Gable, John H., assignor.)						
Jones, Rodman, and J. Stewart; said Stewart assignor to H. Climer, Schooley's Station, Ohio. Potato-planter.....	228,902	June 15	917	250	17	1384
Jones, Rolla R., Watertown, N. Y. Pliers.....	226,756	Apr. 20	721	201	17	887
Jones, Samuel, Lincoln, Ill. Steam coffee and tea pot.....	231,586	Aug. 24	1140	319	18	451
Jones, Samuel W., assignor to J. Nicholson, Detroit, Mich. Soil-bucket.....	224,018	Feb. 3	54	16	17	212
Jones, Stephen W., Petersburg, Va. Process and machinery for manufacturing tobacco.....	224,439	Feb. 10	539	155	17	311
Jones, Thomas B., Rochester, Ky. Fence-hoister, &c.....	235,877	Dec. 28	1020	282	18	1475
Jones, Thomas F., Aberdeen, Ohio, assignor of one-half interest to T. K. Ball & Son, Maysville, Ky. Plow.....	231,913	Sept. 7	42	10	18	521
Jones, Thomas T., <i>et al.</i> (See Mann, Frederick, assignor.)						
Jones, Walter W. (See Gould, Reuben B. H., assignor.)						
Jones, William, Kalamazoo, Mich. Box-fastener.....	233,252	Oct. 12	561	155	18	838
Jones, William A. (See Briggs and Jones.)						
Jones, William C., Syra, one of the islands of the Grecian Archipelago. Hydraulic punching-machine.....	233,419	Oct. 19	791	218	18	884
Jones, William E., St. Louis, Mo. Dinner-bucket.....	233,253	Oct. 12	561	155	18	838
Jones, William G., San José, Cal. Vessel for containing milk and other articles.....	232,186	Sept. 14	371	103	18	593
Jones, William H. (See Jones, Charles E. and W. H.)						
Jones, William J. (See Dndley and Jones.)						
Jones, William R. (See Ridley, Henry A., assignor.)						
Jones, William W., Nashville, Tenn. Machine for making rims for tops of metal vessels.....	235,878	Dec. 28	1020	282	18	1475
Jonson, Jephtha C. (See Young, Thomas B., assignor.)						
Jontz, George, Wyandot, Ill. End-gate for wagons.....	224,697	Feb. 17	839	238	17	372
Jordan, August C., Pittsburg, Pa., assignor of one-half interest to J. Robson & Son. Coal- washing machine.....	231,429	Aug. 24	963	271	18	423
Jordan, David C., Plum Hollow, Iowa. Clothes-pounder.....	232,076	Oct. 5	219	59	18	774
Jordan, Edgar L., and M. E. Taylor, North Attleborough, Mass. Ring for jewelry.....	230,637	Aug. 3	50	14	18	255
Jordan, Edmund, assignor to E. W. Bliss and J. H. Williams, Brooklyn, N. Y. Sheet- metal-screw machine.....	230,875	Aug. 10	335	97	18	309
Jordan, Henry, San Francisco, Cal. Cement compound.....	231,172	Aug. 17	676	.....	18	370
Jordan, Joseph. (See Markle and Jordan.)						
Jordan, Joseph, and C. C. Markle, Pittsburg, Pa. Suction or vacuum box for paper-machines.....	225,141	Mar. 2	185	52	17	488
Jordan, Sarah B., Arba, Ind. Kitchen-cabinet.....	235,153	Dec. 7	113	32	18	1300
Jordan, Scott D., Cape Elizabeth, and W. A. Clark, Deering, Me. Plate or stove-cover rack.....	235,362	Dec. 14	375	103	18	1351
Josef, Edward E., Buffalo, N. Y. Wheel and pulley.....	229,138	June 22	1192	326	17	1433
Joseph, John, Brooklyn, N. Y. Window-screen.....	232,725	Sept. 28	1016	280	18	714
Joslin, B. Duane. (See Smith and Joslin.)						
Joslin, Gilman, Boston, Mass. Globe.....	224,292	Feb. 10	371	106	17	284
Joslin, Jacob D., Trenton, N. J. Machine for making rubber belting.....	231,327	Aug. 17	848	239	18	398
Joslin, Thomas J., Flint, Mich. Camp-bed.....	229,421	June 29	1517	419	17	1486
Joslin, William C., Putnam, Conn. Bag-fastener.....	233,935	Nov. 2	124	34	18	1007
Joslin, William E., Scituate, R. I. Stock for metallic tips for lacings.....	232,289	Jan. 6	100	24	17	19
Joslyn, Charles A., Rochester, Minn. Harvester.....	230,284	July 20	916	260	18	165
Joslyn, Elias P., Brockport, N. Y. Thill-coupling.....	226,452	Apr. 13	355	101	17	818
Josselyn, Henry S., Newton, Mass. Flier for speeders.....	227,015	Apr. 27	1038	288	17	950
Josserand, Peter, Hockley, Tex. Valve-gear for engines.....	229,708	July 6	225	61	18	41
Jonbert, Edward, and J. H. White, Glens Falls, N. Y. Buckboard.....	223,920	Jan. 27	875	233	17	179
Jordan, Lafayette. (See Swinchart and Jordan.)						
Jové, Juan V., Barcelona, Spain. Duplex whistle for steam-boilers.....	227,539	May 11	520	150	17	1075
Joy, Thaddeus C., Titusville, Pa. Steam-radiator.....	231,722	Aug. 31	1304	367	18	484
Joy, Thaddeus C., Titusville, Pa. Steam-generator.....	233,624	Oct. 26	1046	291	18	936
Joyce, Joseph L. (See Whittlesey, Charles E., assignor.)						
Joyce, Thomas. (See Hadley and Joyce.)						
Judd, Albert D., New Haven, Conn. Picture-nail. (Reissue).....	9,440	Nov. 2	343	94	18	1044
Judd, Charles B. (See Gates and Potter, assignors.)						
Judd, Charles B., <i>et al.</i> (See Gates, George W., assignor.)						
Judd & Co., H. L. (See Shaw, A. B., assignor.)						
Judd, Hubert L., Brooklyn, N. Y. Cornice-bracket.....	232,644	Sept. 28	924	254	18	699
Judd, James L., assignor of one-half interest to H. Wiard, Syracuse, N. Y. Plow.....	231,810	Aug. 31	1412	398	18	501
Judd, John R., New York, N. Y. Exercising-machine.....	231,431	Aug. 24	965	272	18	424
Judson, Roswell S., Matteawan, N. Y. Sweat-scraper.....	227,362	May 11	327	96	17	1042
Judson, William E., Cleveland, Ohio. Crucible and cupel tongs.....	232,977	Oct. 5	219	59	18	774
Judson, William E., Cleveland, Ohio. Assay-furnace.....	236,037	Dec. 28	1214	335	18	1505
Juefs, Albert, Dixon, Ill. Windmill.....	227,540	May 11	520	150	17	1075
Juengst, George, New York, N. Y. Sewing-machine.....	228,820	June 15	827	226	17	1372
Juhl, Ernst, Hamburg, Germany. Lock.....	223,739	Jan. 20	638	171	17	131
Julian, Motier L., Mount Pleasant, Iowa. Washing-machine.....	229,711	July 6	231	64	18	42
June, Solomon, assignor of one-third interest to S. G. Elliott, Ithaca, N. Y. Straining-cover for milk-nails.....	224,699	Feb. 17	840	239	17	373
June, Solomon, assignor of one-half interest to A. B. Dale, Ithaca, N. Y. Horse-detacher.....	230,225	July 20	917	261	18	165
Junghann, Otto. (See Althaus, Junghann, and Usmann.)						
Junkin, James H., assignor of one-half interest to W. C. and W. J. Heyser, Jackson, Mich. Coin-separator.....	229,712	July 6	232	64	18	42
Jurisch, Konrad W., and J. H. Lewis, Widnes, England, W. R. Proell and C. J. Scharowsky Dresden, Saxony. Compound engine.....	226,405	Apr. 13	297	86	17	809
Jurisch, Konrad W., J. H. Lewis, Widnes, England, W. R. Proell and C. J. Scharowsky, Dresden, Saxony. Injector-engine.....	233,354	Oct. 19	709	194	18	870
Justi, Henry D., Philadelphia, Pa. Dental plugger.....	224,595	Feb. 17	730	207	17	354
Juvel & Co. (See Arkell and Richmond, assignors.)						
Kabus, Robert, New York, N. Y. Eyeglasses.....	234,581	Nov. 16	955	253	18	1162
Kacer, Martin V., St. Louis, Mo. Bottle-wrapper.....	234,582	Nov. 16	955	253	18	1162
Kaemp, Reinhold. (See Nagel and Kaemp.)						
Kahle, Manuel W., assignor to M. J. Kahle, Duke Centre, Pa. Combined calipers and scriber.....	230,420	July 27	1112	312	18	203
Kahle, Manuel W., assignor to M. J. Kahle, Duke Centre, Pa. Calipers and centering device.....	230,421	July 27	1114	313	18	204
Kahle, Martha J. (See Kahle, Manuel W., assignor.)						
Kahler, Conrad, Chicago, Ill., assignor to F. B. Williams, Philadelphia, Pa. Delivery ap- paratus for printing-machines.....	225,142	Mar. 2	166	52	17	488
Kahler, Henry, Philadelphia, Pa. Distributing-caster.....	225,143	Mar. 2	167	53	17	488
Kahly, Peter S. (See Walton, William R., assignor.)						
Kahn, Lazard. (See Holliday, George H., assignor.)						
Kahn, Lazard, Cincinnati, Ohio. Cooking-stove.....	223,863	Nov. 2	44	12	18	994

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Kaiper, Charles. (See Moenkedick, Theodore, assignor.)						
Kaiser, Nikolaus, Grellingen, Switzerland, assignor to Society for the Manufacture of Wood Pulp at Grellingen. Method and apparatus for manufacturing paper and pasteboard.....	223,918	Jan. 27	872	232	17	178
Kaldenberg, Frederick J. (See Davis, Abbot R., assignor.)						
Kaldenberg, Frederick J., New York, N. Y. Toilet-mirror.....	229,828	July 13	379	105	18	72
Kaltboff, Casper, assignor of two-thirds interest to G. Fleischmann, Buffalo, N. Y. Rectifying spirits.....	231,328	Aug. 17	849	-----	18	398
Kamin, Eduard, and H. Egberts, Bremen, Germany. Fire-escape.....	235,252	Dec. 7	227	61, 62	18	1318
Kammerer, Tony, assignor of one-half interest to J. J. Palmer, Wayne, Mich. Land-roller..	232,354	Sept. 21	585	161	18	635
Kamp, Berthold A., Evansville, Ind. Corn-sheller.....	228,078	May 25	1163	331	17	1198
Kamp, Jacob C., and C. Brown, assignors to W. P. Kamp, New York, and J. Brown, East Hamburg, N. Y. Baling-press.....	224,920	Feb. 24	1114	319	17	432
Kamp, William P., et al. (See Kamp and Brown, assignors.)						
Kampfe, Frederic and O. F., New York, N. Y. Safety-razor.....	228,904	June 15	919	250	17	1324
Kampfe, Otto F. (See Kampfe, Frederic and O. F.)						
Kanavel, Lyman M., Nashville, Ohio. Pump.....	234,583	Nov. 16	956	253	18	1162
Kane, Frederick L. (See Knudson and Kane.)						
Kane, John H., Pittsburg, Pa. Hydraulic engine.....	225,614	Mar. 16	748	221	17	607
Kane, John R. (See Knudson and Kane, assignors.)						
Kane, Josiah C., Columbus, Ill. Wagon-tire tightener.....	223,518	Jan. 13	382	101	17	80
Kane, Thomas D., New Orleans, La. Baling-press.....	229,892	July 13	449	124	18	83
Kanne, William H., Baltimore, Md. Green-corn cutter.....	235,253	Dec. 7	229	62	18	1319
Kanouse, Charles O. (See Deutsch and Kanouse.)						
Kaps, Albert, et al. (See Reinhold, Franz, assignor.)						
Kasmirsky, Morris. (See Farrier, John M., assignor.)						
Kastner, August, Newark, N. J. Ash-sifter.....	235,089	Dec. 7	32	10	18	1286
Kato, George P., New York, and G. H. Chinnock, Brooklyn, N. Y. Lamp.....	223,923	Jan. 27	880	234	17	180
Katzenberg, Jacob, New York, N. Y. Suspenders.....	229,141	June 22	1194	327	17	1433
Katzenberg, Jacob, New York, N. Y. Suspenders. (Reissue).....	9,435	Oct. 26	1288	360	18	977
Katzenstein, Leopold, New York, N. Y. Metallic packing for piston-rods, &c.....	228,200	June 1	44	14	17	1234
Kauffmann, Julius, Croellwitz, near Halle-on-the-Saale, Prussia, Germany. Converting straw into bleached paper.....	229,254	June 29	1317	-----	17	1459
Kaufmann, Abraham. (See Voos, Johanna, assignor.)						
Kaufmann, Abraham, New York, N. Y. Satchel-clasp.....	226,174	Apr. 6	31	8	17	751
Kay, John, St. Louis, Mo. Stock-car.....	233,936	Nov. 2	125	34	18	1008
Kayser, John, Kaiserslautern, Germany. Bobbin-winding attachment for sewing-machines..	226,322	Apr. 6	196	58	17	782
Kayton, William. (See Brown and Mayer, assignors.)						
Kazar, John H., Boston, Mass. Elevator.....	229,142	June 22	1195	327	17	1433
Keane, William, assignor to S. S. Fuller, Stratford, Ontario, Canada. Tow-cleaning machine.	227,261	May 4	201	59	17	1010
Kearcher, Charles, and S. H. Edgett, Orange, N. J. Hat-finishing machine.....	234,783	Nov. 23	1200	324	18	1208
Kearful, Alexander, St. Joseph, Mo. Buckle attachment for trace-clips.....	234,784	Nov. 23	1202	324	18	1209
Keating, Jeremiah H., Boston, assignor to himself and W. F. Miller, Chelsea, Mass. Folding packing-box.....	233,355	Oct. 19	711	194	18	870
Keating, Thomas B., and L. W. Clarke, Sherman, Tex., and W. W. Gelatt, Washington, D. C. Compressed-air water-elevator.....	223,925	Jan. 27	882	234	17	180
Keck, George F., et al. (See Miesch, John, assignor.)						
Keck, Jeremiah, et al. (See Cole, George P., assignor.)						
Keck, Philip, et al. (See Cole, George P., assignor.)						
Keeble, George, Lowell, Mass. Stop mechanism for paper feeding and cutting machines. (Reissue).....	9,262	June 22	1279	352	17	1446
Keech, Walter, assignor to G. R. Wight, New York, N. Y. Refrigerator.....	233,772	Oct. 26	1208	335	18	964
Keefer, Jacob N., and W. A. Reynolds, Warrensburg, Ill. Coffin.....	233,356	Oct. 19	711	194	18	870
Keele, Peyton S., Pine Creek Mills, Mo. Hydraulic engine.....	235,254	Dec. 7	229	62	18	1319
Keeler, Sanford, East Saginaw, Mich. assignor of one-half interest to W. J. Watson, Chicago, Ill. Car-truck.....	226,324	Apr. 6	198	58	17	782
Keeley, Oliver B., et al. (See Fleming, John, assignor.)						
Keen, George V., et al. (See Solter, John, assignor.)						
Keen, James M., Digby, Nova Scotia, Canada. Churn.....	228,646	June 8	588	156	17	1327
Keen, Walter H., Woodbridge, Cal. Gniding-header.....	228,260	June 1	121	35	17	1246
Keenan, William, assignor of one-half interest to N. B. Hooper, Brooklyn, N. Y. Felting-machine.....	223,357	Jan. 6	172	45	17	31
Keenan, William, assignor of one-half interest to N. B. Hooper, Brooklyn, N. Y. Felting-machine.....	223,358	Jan. 6	173	45	17	31
Keenan, William, Brooklyn, N. Y., assignor to himself and N. B. Hooper. Hat-poucing machine. (Reissue).....	9,125	Mar. 23	1096	312	17	674
Keenan, William, assignor of one-half interest to N. B. Hooper, Brooklyn, N. Y. Hat-poucing machine.....	226,323	Apr. 6	197	58	17	782
Keenan, William, Toronto, Ontario, Canada. Binder for the filing and protection of papers.	230,135	July 20	740	207	18	138
Keene, George, Chicago, Ill. Spring-hinge.....	231,053	Aug. 10	527	148	18	339
Keene, George A., assignor of one-half interest to C. Healey, Lynn, Mass. Combined measure and funnel.....	225,755	Mar. 23	928	268	17	646
Keene, Samuel D., Providence, R. I., assignor to A. Hammond, Willimantic, Conn. Cleaning and opening spinners' staples.....	229,256	June 29	1319	363	17	1459
Keeney, Fielding H., assignor of one-third interest to D. Mayhew, Newport, Ky. Hatchway-gate.....	223,519	Jan. 13	383	102	17	80
Keethler, Daniel, Mount Orab, Ohio. Car-coupling.....	234,111	Nov. 2	339	93	18	1043
Keir, Cyrus, assignor of one-half interest to W. F. Eastman and D. J. Jenne, Sterling, Ill. Postal-card.....	229,893	July 13	449	124	18	84
Keiper, John F., assignor to J. W. Keiper, Leavenworth, Kans. Device for hitching horses..	233,421	Oct. 19	793	219	18	884
Keiper, John W. (See Keiper, John F., assignor.)						
Keirau, Michael E., Boston, Mass. Leg-rest and reclining-chair.....	234,041	Nov. 2	268	72, 73	18	1030
Keirkner, August N., Motala, Sweden. Rail-sanding apparatus for locomotives.....	223,231	Jan. 6	28	7	17	7
Keiser, Florenz, assignor of one-half interest to H. G. Kulp, Pottstown, Pa. Car-axle box..	231,814	Aug. 31	1418	399	18	501
Keiser, Florenz, assignor of one-half interest to H. G. Kulp, Pottstown, Pa. Car-axle box..	231,815	Aug. 31	1419	399	18	502
Keisling, Samuel, and T. N. Babb, Monroe, Tenn. Spinning-machine.....	224,700	Feb. 17	841	239	17	373
Keiter, George O., assignor to S. Keiter, Spring City, Pa. Meat and vegetable cutter.....	236,038	Dec. 28	1215	335	18	1506
Keiter, Susanna. (See Keiter, George O., assignor.)						
Keith, Horace M., Commerce, assignor of one-half interest to J. P. Harger, Pontiac, Mich. Vehicle-spring.....	228,360	June 1	225	64	17	1263
Keith, Jeremiah, Providence, R. I. Sewing-machine.....	233,626	Oct. 26	1049	292	18	936
Keith, Nathaniel S., New York, N. Y. Regulator for electric lamps.....	227,264	May 4	203	59	17	1011
Keith, Nathaniel S., New York, N. Y. Dynamo-electrical machine.....	228,763	June 15	751	207	17	1362
Keith, Nathaniel S., assignor to Fuller Electrical Company, New York, N. Y. Commutator for magneto-electric machines.....	229,255	June 29	1318	363	17	1459
Keith, Thomas, and A. Philp, New York, N. Y. Hand-stamp.....	232,727	Sept. 28	1018	280	18	714

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Keizer, Louis R. (See Painter, William, assignor.)						
Kelch, Minnie, Boston, Mass. Hand-telephone support	231,329	Aug. 17	850	239	18	398
Keller, Gottlieb. (See Shock and Keller.)						
Keller, Jacob, Jr., Naperville, Ill. Clothes-pounder	225,392	Mar. 9	485	141	17	550
Keller, Jacob, Jr., Naperville, Ill. Hook for catching animals and fowls.	235,154	Dec. 7	114	32	18	1300
Keller, John J. (See Salathé Fritz, assignor.)						
Keller, Moses A., Brockport, N. Y. Grain-binder	230,705	Aug. 3	126	37, 38	18	267
Keller, Moses A., assignor of one-half interest to W. J. Englebeck, Fremont, Ohio. Grain cleaner and binder.	231,914	Sept. 7	42	10	18	531
Keller, Peter, Chicago, Ill. Gas-regulator.	228,079	May 25	1165	332	17	1198
Keller, William F. (See Berkey and Keller.)						
Kelley, Clarence E. (See Frankle and Kelley.)						
Kelley, Fergus, Ansonia, Conn. Suspender-buckle	223,359	Jan. 6	174	46	17	32
Kelley, John C. (See Westlake, Reuben M., assignor.)						
Kelley, Samuel D., Somerville, Mass. Door-check	230,492	July 27	1115	313	18	204
Kelley, William, Baltimore, Md. Locomotive head-light	234,410	Nov. 16	731	197	18	1125
Kelley, William S. (See White and Kelley.)						
Kellogg, Ansel N. (See Blakely, Charles F., assignor.)						
Kellogg, Ansel N., Chicago, Ill. Game apparatus	280,947	Aug. 10	410	118	18	321
Kellogg, Charles G., Brooklyn, N. Y. Steam canal-boat	229,000	June 22	1045	285	17	1411
Kellogg, Charles H., North Amherst, Mass., assignor of one-half interest to Noble Brothers, New Milford, Conn. Mechanism for forming wire staples and securing them in paper.	225,933	Mar. 30	1140	324	17	694
Kellogg, Charles L., Gasport, N. Y. Plaiting attachment for sewing-machines	234,677	Nov. 23	1080	290	18	1189
Kellogg, Dan W., and W. A. Kirby, Auburn, N. Y. Steam-boiler	235,684	Dec. 21	767	218	18	1424
Kellogg, Frank J., Flint, Mich. Apparatus for drafting patterns	235,776	Dec. 21	877	245	18	1442
Kellogg, Henry, New Haven, Conn. Metal-rolling machine. (Reissue.)	9,385	Sept. 21	855	237	18	681
Kellogg, Joseph A. (See Schaurer, George P., assignor.)						
Kellogg, Levi M., San Francisco, Cal. Ore-concentrator	231,330	Aug. 17	851	239	18	398
Kellogg, L. S. (See Crane, Thomas, assignor.)						
Kellogg, Milo G., Hyde Park, Ill. Electric-light regulator	229,536	July 6	34	9, 10	18	13
Kellogg, Salvin F., Adrian, Mich. Car-heater	226,862	Apr. 27	854	237	17	921
Kellogg, Smith M., and E. T. Sheldon, Omro, Wis. Portable soda-fountain	232,187	Sept. 14	372	103	18	593
Kellogg, William P., et al. (See Sweet, Miles, assignor.)						
Kells, Charles E., Jr., New Orleans, La. Adjustable bracket	228,645	June 8	587	155	17	1327
Kells, Edward, Cleveland, Ohio. Hydrocarbon-oil burner	231,674	Aug. 31	1247	351	18	475
Kells, Philip H., Adrian, Mich. Tile and brick machine	229,143	June 22	1197	328	17	1434
Kelly, Alexander. (See Seagrave, George, assignor.)						
Kelly, Edward. (See Fielder and Kelly.)						
Kelly, George, Chicago, Ill. Steam-boiler	234,986	Nov. 30	1458	302	18	1258
Kelly, George B., Boston, Mass., assignor to Mechanical Orguinette Company, New York, N. Y. Manufacturing perforated sheets for mechanical musical instruments	223,675	Jan. 20	575	.....	17	120
Kelly, George B., Boston, Mass., assignor to Mechanical Orguinette Company, New York, N. Y. Apparatus for cutting pattern-plates to be used in the manufacture of perforated music-sheets.	223,676	Jan. 20	576	155	17	120
Kelly & Hughes. (See Sullivan and Christofferson, assignors.)						
Kelly, James D., Pittsburg, Pa. Construction of posts and columns	232,274	Sept. 14	477	133	18	612
Kelly, James F., Virginia City, Nev. Car-wheel	226,453	Apr. 13	356	102	17	818
Kelly, John, assignor to himself and A. T. Beedle, Troy, Ohio. Wheel-scraper for corn-planters	228,080	May 25	1166	332	17	1198
Kelly, John T., et al. (See Blake, George W., assignor.)						
Kelly, Michael, New York, N. Y. Atmospheric propeller	231,812	Aug. 31	1414	398	18	501
Kelly, Patrick, San Francisco, Cal. Boot and shoe	229,144	June 22	1198	328	17	1434
Kelly, Thomas A., Wood's Bluff, Ala. Pack-saddle	232,729	Sept. 28	1019	281	18	715
Kelly, Thomas K. (See Parks, Lyman B., assignor.)						
Kelly, William, Saranac, Mich. Harrow-tooth	231,816	Aug. 31	1420	399	18	502
Kelsey, George R., West Haven, Conn. Suspender-buckle	224,189	Feb. 3	250	73	17	244
Kelsey, George R., West Haven, Conn. Buckle-loop	227,541	May 11	521	151	17	1075
Kels, James P., assignor of one-half interest to J. Hickey, Morgantown, Ind. Automatic gate	226,522	Apr. 13	444	124	17	832
Kemon, Solon C., et al. (See Darrell, Armistead M., assignor.) (Reissue.)						
Kempster, Daniel E., Boston, Mass. Spring shade-roller	224,596	Feb. 17	732	207	17	354
Kendall, Edward G., Boston, Mass. Self-closing hatchway-guard	234,042	Nov. 2	269	73	18	1030
Kendall, Frank M. C. (See Flora, Orlando V., assignor.) (Reissue.)						
Kendall, George H. (See Taylor, Charles, assignor.)						
Kendall, George W., St. Albans, Vt. Plaiting-machine	229,423	June 29	1519	419	17	1486
Kendall, Joseph B., Findlay, Ohio. Carriage-curtain fastening	227,262	May 4	202	59	17	1011
Kendall, Orson B., Buffalo, N. Y., assignor to International Railway Supply Company, Montreal, Canada. Steam railway-brake	224,293	Feb. 10	371	106	17	285
Kendel, Adolphus C., Cleveland, Ohio. Smoke-bell	231,587	Aug. 24	1141	319	18	451
Kendrick, Andrew W. and C. T., Brooklyn, N. Y. Folding cabinet-bedstead	225,393	Mar. 9	485	{ 141 142 }	{ 17 17 }	{ 550 550 }
Kendrick, Charles T. (See Kendrick, Andrew W. and C. T.)						
Kendrick, Frank B., Lebanon, N. H. Watch-key	231,173	Aug. 17	677	191	18	370
Kendrick, Thomas F. (See Shea, Mortimer, assignor.)						
Kenerson, Virgil D. P., assignor to C. H. Morgan, Worcester, Mass. Wire-drawing	224,829	Feb. 24	1015	.....	17	416
Kenerson, Wallace, Cleveland, Ohio. Wire finishing and straightening machine	226,175	Apr. 6	32	9	17	752
Kenna, Joseph W., assignor of one-half interest to R. A. Hitchcock, Chicago, Ill. Child's chair and carriage	224,923	Feb. 24	1118	319	17	433
Kennan, Sidney T., Menasha, Wis. Felly-sawing machine	226,863	Apr. 27	855	237	17	921
Kennard, Charles E., Boston, Mass., assignor to Monsam Manufacturing Company, Kennebunk, Me. Machine for molding heel-stiffeners for boots and shoes	227,113	May 4	24	8	17	982
Kennedy, Charles, Fredericksburg, Va. Storage oil-tank	234,678	Nov. 23	1082	291	18	1189
Kennedy, Edward S. T. (See Hazelton, Milton W., assignor.)						
Kennedy, Hosea, Harlansburg, Pa. Machine for haling bran, &c.	226,523	Apr. 13	446	125	17	832
Kennedy, James T., assignor of one-half to L. V. Fogleman, Petersburg, Tenn. Plow	234,915	Nov. 30	1371	369	18	1243
Kennedy, John, Attleborough, Mass. Button and stud	235,634	Dec. 21	714	203	18	1415
Kennedy, John A., London, Ohio. Portable grain and hay feed-rack	226,757	Apr. 20	722	201	17	888
Kennedy, John H., Cleveland, Ohio. Combined hydrant and street-washer	228,764	June 15	755	207	17	1362
Kennedy, Martin, Chicago, Ill. Gas-cleaning apparatus	228,765	June 15	756	208	17	1362
Kennedy, Matthew, Boston, Mass. Device for forming sheet-metal pans	224,922	Feb. 24	1117	319	17	433
Kennedy, Samuel V. (See Tiesing and Kennedy.)						
Kennedy, Thomas C., West Troy, N. Y. Stove-bottom	232,040	Sept. 7	198	54	18	557
Kenny, Daniel J., Cincinnati, Ohio. Permutation-lock	229,829	July 13	380	105	18	72

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Kent Furniture Manufacturing Company. (See Ransom, Loomis E., assignor.)						
Kent, Gabriel, Williamsport, Pa. Whisk-broom holder.....	234,289	Nov. 9	569	155	18	1090
Kent, Henry R. (See Smith, Walton D., assignor.)						
Kent, James M., Montpelier, Vt. Fruit-gatherer.....	233,771	Oct. 26	1207	335	18	964
Kent, James W., Brooklyn, N. Y. Machine for cutting paper.....	231,813	Aug. 31	1416	399	18	501
Kent, Milton A. (See Mead, Albert G., assignor.)						
Kenworthy, John R., Richmond, Ind. Cash-register.....	230,022	July 13	595	165	18	106
Kenworthy, William, assignor to himself and R. R. Brown, Brooklyn, N. Y. Tap.....	224,921	Feb. 24	1116	319	17	432
Kenyon, James P., Brooklyn, N. Y. Hydrant.....	225,934	Mar. 30	1141	324	17	694
Kenyon, John, assignor to himself, J. G. Hubbard, Buffalo, T. Isbister and F. S. Upton, Rochester, and J. H. Ishister, Niagara Falls, N. Y. Hose-coupling.....	235,777	Dec. 21	878	245	18	1442
Kenyon, John W., Manchester, England. Steam-engine recorder.....	232,978	Oct. 5	220	59	18	774
Kenyon, Richard W., <i>et al.</i> (See Riley, Wilson, assignor.)						
Kenyon, Wiley, Crawfordsville, Ind., assignor to G. B. Maynadier. Photographic head-rest. (Reissue).....	9,451	Nov. 9	673	183	18	1107
Kepner, George W., Quincy, Minn. Mop-holder for scrubbing-pails.....	227,263	May 4	203	59	17	1011
Kerfoot, Barrett W., Dayton, Ohio. Window-cornice.....	226,406	Apr. 13	299	86	17	810
Kern, Frank. (See Bowman, Harriet F., assignor.)						
Kern, Henry. (See Thompson, Henry, assignor.)						
Korn, Isaac R., Kansas City, Mo. Steam-boiler.....	233,102	Oct. 12	384	105	18	807
Kernocban, John A., Pittsfield, Mass. Screw and bolt lock.....	231,588	Aug. 24	1142	319	18	451
Kerosene Lamp Heater Company. (See Billings, William B., assignor.) (Reissue.)						
Kerper, George B. (See Bovey, George C., assignor.)						
Kerr, Archibald H., assignor of one-half interest to W. H. Kittrell, Midway, Tex. Composition for whitewash.....	226,758	Apr. 20	722		17	888
Kerr, Christopher C., Springfield, Mo. Curtain-fixtne.....	231,817	Aug. 31	1421	400	18	502
Kerr, Joseph B. (See Lawrence and Kerr.)						
Kerstetter, James, and J. Fagley, Kribbs Farm, Pa. Ball-trap.....	232,728	Sept. 23	1018	280	18	715
Kessler, William H. H., Baltimore, Md. Sash-cord guide.....	233,254	Oct. 12	563	156	18	839
Kesselmire, Charles F. (See Smith, Jacob A., assignor.)						
Kessler, Jacob. (See Sullivan, Kessler, and Foster.)						
Kessler, Joseph, Florence, Ala. Lemon-squeezer.....	223,360	Jan. 6	175	46	17	32
Kossler, Peter, Butler, Md. Plow.....	223,361	Jan. 6	175	46	17	762
Kessler, Samuel. (See Pfeager, Justus, assignor.)						
Ketcham, Israel V., Brooklyn, N. Y. Measuring milk-pail.....	231,811	Aug. 31	1413	398	18	501
Ketchledge, James T., assignor of one-half interest to E. P. Robinson, Dayton, Ohio. Combined track gage and level.....	227,791	May 18	817	231	17	1131
Ketten, Henry, Paris, France, assignor to Chickering & Sons, Boston, Mass. Piano-forte action.....	224,091	Feb. 3	144	40	17	227
Keuffel & Esser. (See Leistner, Carl E. and H. H., assignors.)						
Key, Erasmus H., Mayfield, Ky. Bee-hive.....	223,924	Jan. 27	881	234	17	180
Key, Talbot C., White Sulphur Springs, Ga. Portable hay and cotton press.....	224,924	Feb. 24	1119	320	17	433
Keyes, Benjamin B., Chelsea, assignor of one-half interest to J. S. Potter, Newton, Mass. Elevator.....	226,077	Mar. 30	1315	370 371	17	720
Keyworth, Charles, Salisbury, Conn. Treating bone to imitate stag-horn.....	229,145	June 22	1199	328	17	1434
Keyworth, Charles, Salisbury, Conn. Carving implement.....	232,645	Sept. 28	925	254	18	699
Kidd, George W., New York, N. Y. Process and apparatus for distilling alcohol.....	227,018	Apr. 27	1044	290	17	951
Kidd, James. (See Livesey and Kidd.)						
Kidd, Joshua. (See Livesey and Kidd.)						
Kidder, George R., Armada, Mich. Door-hanger.....	230,785	Aug. 3	215	62	18	281
Kidder, Kirk, and P. S. Jenkins, New Liberty, Ky.; said Jenkins assignor to said Kidder. Bee-hive.....	227,979	May 25	1055	300	17	1180
Kidder, Moses W., Lincoln, Mass. Process of and apparatus for manufacturing gas.....	236,039	Dec. 28	1217	335 336 337	18	1506
Kidder, Wellington P., Boston, Mass. Chromatic-printing machine.....	224,440	Feb. 10	540	155 156	17	312
Kidney, Nelson, Dunkirk, Ohio. Door-check.....	224,092	Feb. 3	145	41	17	227
Kidney, Nelson, Dunkirk, assignor of one-half to E. H. Cook, Forest, Ohio. Ice-cream freezer.....	236,040	Dec. 28	1219	336	18	1506
Kidnocker, Morris, assignor of one-half to J. R. Turner, Muncie, Ind. Feeder for corn-shellers, &c.....	234,292	Nov. 9	572	156	18	1090
Kiefer, John, Hamilton, Ohio. Hoe.....	230,552	July 27	1260	355	18	228
Kieffer, Francis A., <i>et al.</i> (See Sébillot, Amédée G., assignor.)						
Kiesele, John A., New York, N. Y. Candle-holder for Christmas-trees.....	227,693	May 18	703	199	17	1114
Kieser, Charles, assignor to S. G. B. Cook, Baltimore, Md. Meat-cutter.....	232,275	Sept. 14	478	133	18	612
Kilbourn, Beecher, West Winfield, N. Y. Stove-pipe shelf.....	231,915	Sept. 7	43	10	18	531
Kiley, James, Detroit, Mich. Grain-car door.....	227,265	May 4	205	60	17	1011
Killam, Charles W. (See Whitney and Killam.)						
Killefer, John, Bloomingdale, Mich. Machine for uniting plow shares and points.....	226,326	Apr. 6	200	59	17	782
Killoran, William, Cohoes, N. Y. Lamp-torch.....	224,830	Feb. 24	1015	287	17	416
Kilmer, Daniel A., Howe's Cave, N. Y. Bale-tie.....	228,648	June 8	589	157	17	1328
Kilmer, Daniel A., Howe's Cave, N. Y. Bale-tie.....	228,649	June 8	590	157	17	1328
Kilmer, Daniel A., Howe's Cave, N. Y. Wire-twister.....	228,905	June 15	920	250	17	1385
Kilmer, Daniel A., Howe's Cave, N. Y. Wire-twisting machine.....	230,553	July 27	1260	355 356	18	229
Kilmer, Irving A., Niskayuna, N. Y. Wire-bending machine.....	235,538	Dec. 14	595	170	18	1388
Kilmer, Irving A., Niskayuna, N. Y. Wire-bending machine.....	235,781	Dec. 21	882	246	18	1443
Kilroy, Peter, and J. A. Flick, Boston, Mass. Boiler-furnace.....	235,779	Dec. 21	880	245	18	1443
Kiltz, Henry A., Kalamazoo, Mich. Spring-tooth harrow.....	231,175	Aug. 17	679	191	18	371
Kimball, Alonzo H. and C. H., Littleton, Mass. Road scraper and grader.....	231,589	Aug. 24	1143	320	18	451
Kimball, Benjamin P., Elmore, Ohio. Motor.....	235,880	Dec. 28	1023	283	18	1475
Kimball, Charles H. (See Kimball, Alonzo H. and C. H.)						
Kimball, Frank R. (See Soule, Charles W., assignor.)						
Kimball, Frank R., Boston, Mass. Lamp.....	224,441	Feb. 10	543	156	17	312
Kimball, Hiram A., assignor of one-half interest to A. Miller, Philadelphia, Pa. Saw-file.....	229,616	July 6	123	33	18	27
Kimball, James P., Bethlehem, Pa. Lining for furnaces, &c.....	227,542	May 11	522	151	17	1075
Kimball, Perley L., Bellows Falls, Vt., and J. B. Williams, Glastonbury, Conn., assignors to Vermont Farm Machine Company. Bellows Falls, Vt. Milk-cooler.....	229,830	July 13	381	105	18	72
Kimball, William H., Burlington, N. J. Flexible shafting.....	235,780	Dec. 21	881	246	18	1443
Kimbell, Thomas W., New York, N. Y. Latch.....	232,509	Sept. 21	772	213	18	666
Kimber, Abraham, Indianapolis, Ind. Car-coupling. (Reissue).....	9,214	May 25	1258	356	17	1213



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Kimberly, Robert L., Philadelphia, Pa. Matrix-forming machine.....	227,017	Apr. 27	1039	{ 289 290 }	17	950
Kimble, Samuel, Jr., Manhattan, Kans. Force-pump.....	235,782	Dec. 21	882	246	18	1443
Kimble, William, Coatesville, Pa. Carriage-curtain fastening.....	233,255	Oct. 12	563	156	18	839
Kimbley, Frank E. (See Thomas and Kimbley.)						
Kincannon, Frank L. (See Kincannon, James and F. L.)						
Kincannon, James and F. L., Verona, Miss. Wheelbarrow.....	226,325	Apr. 6	199	59	17	782
Kindt, Gustaf F., Montreal, Quebec, Canada. Bolt mechanism for locking ranges of cells.....	224,546	Feb. 17	665	190	17	343
Kinehan, Charles R., Springfield, Ill. Device for adjusting balance-springs of watches.....	232,276	Sept. 14	479	133	18	612
King, Alexander. (See Weatherford, Perry R., assignor.)						
King, Annie L. B. (See King, John F. H., assignor.)						
King, Charles A., assignor to Charles Parker Company, Meriden, Conn. Fastening for fore-end stocks.....	235,881	Dec. 28	1024	283	18	1475
King, De Witt C. (See Lamson and King.)						
King, George D., Oswego, N. Y. Manufacturing paper-pulp from wood.....	225,988	Mar. 30	1212	343	17	705
King, George W., Bloomfield, N. J. Ironing-board.....	227,363	May 11	327	96	17	1042
King, George W., Georgetown, assignor to himself and Z. M. P. King, Washington, D. C. Spring draft-tug.....	230,554	July 27	1262	356	18	229
King, George W., assignor of two-thirds to W. W. Stinchcomb and J. J. Lightfoot, Georgetown, D. C. Tank for the storage of petroleum.....	234,291	Nov. 9	570	155	18	1090
King, Harold. (See Brittain and King.)						
King, Henry F., Bellows Falls, Vt. Milk-setting apparatus.....	226,327	Apr. 6	200	59	17	783
King, Henry W. (See Smith and King.)						
King, Herm A., assignor of one-half to O. J. Foster, Salem, Wis. Cider-press.....	235,685	Dec. 21	771	218	18	1425
King, Hezekiah O., Greenville, S. C. Baling-press.....	228,361	June 1	226	64	17	1264
King, Hiram T., Rochester, N. Y. Culinary steamer.....	227,903	May 25	961	276	17	1166
King, James M., Walnut Station, Minn. Cockle-mill.....	234,290	Nov. 9	569	155	18	1090
King, John F., Washington, D. C. Bottle-stopper.....	230,423	July 27	1115	313	18	204
King, John F., Washington, D. C. Pad for bottle-stoppers.....	232,188	Sept. 14	373	104	18	593
King, John F. H., Port Richmond, N. Y. Fire-escape ladder.....	228,647	June 8	588	156	17	1327
King, John F. H., assignor to A. L. B. King, Port Richmond, N. Y. Fire-escape ladder.....	235,255	Dec. 7	230	62, 63	18	1319
King, John S. (See Sprague, Pearley J., assignor.)						
King, Josias R., St. Paul, Minn. Calendar.....	231,055	Aug. 10	529	149	18	339
King, Josias R., St. Paul, Minn. Calendar-inkstand.....	235,778	Dec. 21	879	245	18	1443
King, Julia A., Sherman, Tex. Cough-medicine.....	234,785	Nov. 23	1202		18	1209
King, Justus W., and H. N. Drake, Independence, Iowa. Steam-generator.....	225,617	Mar. 16	751	221	17	607
King, Laurin L., Chicago, Ill. Necklace-fastening.....	229,257	June 29	1320	363	17	1459
King, Laurin L., Chicago, Ill. Water-closet.....	233,864	Nov. 2	46	12	18	995
King, Moses, Cambridge, Mass. Binder for papers, &c.....	234,987	Nov. 30	1459	392	18	1258
King, Nelson, assignor, by mesne assignments, to Winchester Repeating Arms Company, New Haven, Conn. Magazine fire-arm. (Reissue).....	9,157	Apr. 13	522	145	17	844
King, Norman, Sharpsburg, Pa. Roll for rolling hoop-iron and tube-skelps.....	231,493	Aug. 24	1032	289	18	435
King, O. C. (See Flynn, William V., assignor.)						
King, Orlando J., Chariton, Iowa. Cultivator.....	227,543	May 11	523	{ 151 152 }	17	1075
King, Rufus J. and W. A., Dayton, Ohio. Cooking-stove.....	231,174	Aug. 17	678	191	18	370
King, Sidney B., assignor to himself, J. S. Stygal, Jr., and E. Hurley, Buffalo, N. Y. Apparatus for burning fuel.....	225,223	Mar. 9	285	82	17	518
King, Sidney D., West Pittston, Pa. Car-truck.....	227,792	May 18	818	231	17	1131
King, Victor A., assignor to Winchester Repeating Arms Company, New Haven, Conn. Machine for heading cartridge-shells.....	230,638	Aug. 3	51	14, 15	18	255
King, Victor A., assignor to Winchester Repeating Arms Company, New Haven, Conn. Cartridge implement.....	232,189	Sept. 14	374	104	18	594
King, Walter A. (See King, Rufus J. and W. A.)						
King, William T., Wellborn's Mills, Ga. Cotton and other seed planter.....	231,054	Aug. 10	528	148	18	339
King, Zebulon M. P. (See King, George W., assignor.)						
Kington, James, et al. (See Sébillot, Amédée G., assignor.)						
Kingsland, Ferguson & Co. (See Reeder, William S., assignor.)						
Kingsland, Joseph, Jr., Franklin, N. J. Printer's chase.....	228,201	June 1	45	14	17	1234
Kingsland, Philip, Kildare, Wis. Apparatus for preserving beer, &c.....	231,432	Aug. 24	967	272	18	424
Kingsland, Samuel, Sioux City, Iowa. Apparatus for preventing horses from running away or kicking.....	223,447	Jan. 13	294	78	17	66
Kingsley, John F., Owego, N. Y. Oscillating engine.....	224,093	Feb. 3	146	41	17	227
Kingston, Frank, Greenwich, England. Slip-link for coupling-chains.....	227,793	May 18	819	232	17	1131
Kingston, John C. (See Lyons, Joel, assignor.)						
Kinhart, John, Athens, Ill. Machine for shearing metal.....	232,829	Oct. 5	43	12	18	745
Kinne, Erastus M., Cuba, N. Y. Cockeye.....	227,904	May 25	963	276	17	1166
Kinney, Cyrus, Windsor, Ontario, Canada. Bench-plane gage.....	228,766	June 15	758	208	17	1362
Kinney, Cyrus, Windsor, Ontario, Canada. Marking and slitting gage.....	229,258	June 29	1320	364	17	1459
Kinney, Francis S. (See De Susini-Ruisecco and de Castel-Angeli, Joseph, assignor.)						
Kinney, George, et al. (See Barkheimer, Joseph, assignor.)						
Kinney, Israel, Windsor, Ontario, Canada. Pistol-rest.....	223,926	Jan. 27	884	235	17	180
Kinney, Israel, Windsor, Ontario, Canada. Calipers and dividers.....	230,876	Aug. 10	337	97	18	310
Kinney, Israel, assignor to himself and C. W. Pole, Windsor, Ontario, Canada. Pistol-rest.....	225,062	Mar. 2	102	28	17	473
Kinsell, Dewitt C., Mount Ayr, Iowa. Farm-gate.....	223,520	Jan. 13	384	102	17	80
Kinsey, Joseph. (See Boyer and Kinsey.)						
Kinsey, Joseph. (See Meehan and Kinsey.)						
Kintz, Joseph, assignor to himself and P. J. Clark, West Meriden, Conn. Extension-chandelier.....	224,442	Feb. 10	544	156	17	312
Kintz, Joseph, assignor to himself and P. J. Clark, West Meriden, Conn. Hanging-lamp.....	224,443	Feb. 10	545	156	17	312
Kintz, Joseph, assignor to himself and P. J. Clark, West Meriden, Conn. Lamp.....	221,701	Feb. 17	842	239	17	373
Kintz, Joseph, assignor to himself and P. J. Clark, West Meriden, Conn. Drop-handle.....	224,702	Feb. 17	842	240	17	373
Kintz, Joseph, assignor to himself and P. J. Clark, West Meriden, Conn. Coating metal castings.....	224,925	Feb. 24	1120		17	433
Kintz, Joseph, assignor to himself and P. J. Clark, West Meriden, Conn. Lamp-body.....	225,615	Mar. 16	749	221	17	607
Kintz, Joseph, assignor to himself and P. J. Clark, West Meriden, Conn. Cigar-lighting stand.....	227,267	May 4	206	60	17	1012
Kintz, Joseph, assignor to himself and P. J. Clark, West Meriden, Conn. Coating iron surfaces.....	227,268	May 4	207		17	1012
Kinzer, Jacob, Pittsburg, Pa. Seal-lock.....	230,023	July 13	597	165	18	106
Kipp, Abraham, Jr., and H. Murphy, Sing Sing, N. Y. Fluid-pressure regulator.....	224,190	Feb. 3	250	73	17	245
Kirby, Elijah, assignor of one-half interest to C. Rutter, Detroit, Mich. Broom.....	229,146	June 22	1200	328	17	1434
Kirby, Josiah, Cincinnati, Ohio. Bung. (Reissue).....	9,107	Mar. 2	256	72	17	501
Kirby, Stephen R., New York, N. Y. Grain-shovel.....	228,081	May 25	1167	332	17	1198



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Kirby, Thomas W., Grand Haven, Mich. Construction of ships.....	230,236	July 20	918	261	18	165
Kirby, William A. (See Kellogg and Kirby.)						
Kirby, William A., Auburn, N. Y., assignor to himself and D. M. Osborne. Combined rake and reel for harvesters. (Reissue).....	9,240	June 8	684	188	17	1343
Kircher, Julius, Brooklyn, assignor of three-fifths interest to B. Loewy, New York, N. Y. Manufacture of printing-ink.....	223,363	Jan. 6	177	-----	17	32
Kircher, Julius, Brooklyn, assignor of three-fifths interest to B. Loewy, New York, N. Y. Manufacture of printing-ink. (Reissue).....	9,126	Mar. 23	1096	-----	17	674
Kirk, George. (See Gail, Harry S., assignor.)						
Kirk, John E., Salisbury, Mo. Hay rickling and loading device.....	229,424	June 29	1520	420	17	1486
Kirk, Lewis, Rising Sun, assignor to W. T. Brown, Catonsville, Md. Hay and straw press. (Reissue).....	9,350	Aug. 24	1197	335	18	460
Kirk, Matthew F., Chelsea, Mass. Shutter-fastener.....	227,266	May 4	205	60	17	1011
Kirk, Thomas. (See Hemenway, Bennett, and Kirk.)						
Kirkbride, David M., Dayton, assignor to W. Young, Columbus, Ohio. Plashed hedge. (Reissue).....	9,415	Oct. 12	661	182	18	856
Kirkham, George B., New York, N. Y. Chuck.....	227,114	May 4	26	8	17	982
Kirkham, Henry P., New York, N. Y. Elevator for loading and unloading cattle on ship-board.....	227,544	May 11	523	152	17	1075
Kirkland, John, Menomonee, Wis. Spark-arrester.....	223,362	Jan. 6	176	46	17	32
Kirkland, W. W., et al. (See Bell, Charles S., assignor.)						
Kirkpatrick, Jacob H., assignor to Kirkpatrick & Smith, Newark, N. J. Shirt.....	225,616	Mar. 16	750	221	17	607
Kirkpatrick & Smith. (See Kirkpatrick, Jacob H., assignor.)						
Kirkpatrick, William M., et al. (See Munger, Jerome S., assignor.)						
Kirkup, Lancelot, Brooklyn, assignor to himself and A. Galland, New York, N. Y. Bathing attachment for piers.....	225,989	Mar. 30	1213	343	17	705
Kirkup, Lancelot, Brooklyn, N. Y., assignor to Manhattan Iron and Steel Pier and Bridge Company. Breakwater.....	226,663	Apr. 20	624	174	17	872
Kirkup, Lancelot, Brooklyn, N. Y., assignor to Manhattan Iron and Steel Pier and Bridge Company. Pile.....	226,664	Apr. 20	625	174	17	872
Kirkwood, David, Boston, Mass. Breech-loading fire-arm.....	233,256	Oct. 12	564	156	18	839
Kirkwood, David, Boston, Mass. Breech-loading fire-arm.....	233,773	Oct. 26	1209	336	18	964
Kirkwood, Joseph S., McKeesport, Pa. Lifting-jack. (Reissue).....	9,065	Feb. 3	330	95	17	258
Kisinger, William S., Dayton, assignor of one-half interest to M. Hermann, Campbell County, Ky. Animal-trap.....	225,144	Mar. 2	188	53	17	488
Kissam, Daniel W., assignor to Bridgeport Brass Company, Bridgeport, Conn. Wick-tube for lamp-burners.....	226,176	Apr. 6	35	9	17	752
Kissane, Persifer T., assignor to Aultman & Taylor Company, Mansfield, Ohio. Traction-engine.....	236,041	Dec. 28	1220	{ 336 337 }	{ 18 18 }	{ 1506 1506 }
Kissner, Leonard. (See Outcalt and Kissner.)						
Kistler, Willoughby F., Chicago, Ill., assignor to E. J. Beard, St. Louis, Mo. Vapor-lamp burner.....	235,439	Dec. 14	470	133	18	1367
Kistner, Harry U. (See Sciple, Harry M., assignor.)						
Kitchens, Seaborn, Sr., Gibson, Ga. Cotton-seed huller.....	234,584	Nov. 16	957	{ 253 254 }	{ 18 18 }	{ 1162 1162 }
Kitson, Richard, Lowell, Mass. Beater for cotton-openers.....	229,615	July 6	123	33	18	27
Kittell, Ferdinand A., assignor of three-fourths interest to Board of Managers of St. Paul's Roman Catholic Orphan Asylum and J. J. McCormick, Pittsburg, Pa. Pulley attachment.....	234,585	Nov. 16	957	254	18	1163
Kittell, Frank, Chicago, Ill. Ribbing attachment for knitting-machines.....	235,882	Dec. 28	1025	283	18	1475
Kittrell, William H. (See Kerr, Archibald H., assignor.)						
Kitts, Willard A., Oswego, N. Y. Apparatus for drying shingles.....	228,464	June 8	359	98	17	1294
Kitzmilller, Edward A., Wilkins township, (Pittsburg P. O.) Allegheny county, Pa. Wash-board.....	223,677	Jan. 20	577	155	17	121
Kitzmilller, Edward A., Wilkins township, Allegheny county, Pa. Underground-telegraph line.....	235,883	Dec. 28	1026	284	18	1476
Kizer, James H., assignor of one-half interest to I. J. Evans, Covington, Ky. Fire-place fender.....	227,545	May 11	525	152	17	1076
Kjalman, Hans N., Hyde Park, Ill. Sewing-machine.....	235,783	Dec. 21	883	{ 246 247 }	{ 18 18 }	{ 1443 1443 }
Klamer, August W., Cahoka, Mo. Draft-equalizer for side reaping-machines.....	236,042	Dec. 28	1222	337	18	1507
Klary, Bonifacius, Esslingen, Wurtemberg, Germany, assignor to J. Jarisch, Holyoke, Mass. Machine for making paper filtering-stones, &c.....	230,287	July 20	919	261	18	165
Klatzl, John C. (See Haring, William N., assignor.)						
Kleberg, Charles G. (See Alisoff, Michael, assignor.)						
Kleckner, Jackson, Perry, Iowa. Millstone-dressing machine.....	234,917	Nov. 30	1373	{ 369 370 }	{ 18 18 }	{ 1243 1243 }
Klee, John, Dayton, Ohio. Bottle-stopper.....	231,230	Aug. 17	749	209	18	381
Klees, John. (See Wright, Clubb, Nash, and Klees.)						
Kleiber, Emile, New Orleans, La. Bottle-filler.....	236,043	Dec. 28	1223	337	18	1507
Klein, Alois J., Cincinnati, Ohio. Constructing metal safes and vaults.....	231,231	Aug. 17	749	210	18	381
Klein, Charles C., Philadelphia, Pa. Journal-bearing for shafts.....	225,224	Mar. 9	286	82	17	519
Klein, John E., Oskaloosa, Iowa. Thill-coupling.....	234,191	Feb. 3	252	73	17	245
Kleinberger, Oscar, New York, N. Y. Material for suspender straps or ends.....	225,145	Mar. 2	189	53	17	489
Kleinert, Isaac B., New York, N. Y. Ear-muff.....	227,364	May 11	328	96	17	1042
Kleinhaus, Jacob, New York, N. Y. Anode.....	226,616	Apr. 20	569	158	17	863
Klemm, Frank A., et al. (See Tisdell, Abner G., assignor.)						
Klemm, Frank A., assignor to himself, E. Marx, New York, N. Y., S. Wolf, Washington, D. C., and M. Loth, Cincinnati, Ohio. Telephone-transmitter.....	227,270	May 4	208	61	17	1012
Klemm, Frank A., assignor to himself, E. Marx, New York, N. Y., S. Wolf, Washington, D. C., and M. Loth, Cincinnati, Ohio. Induction-coil.....	227,546	May 11	525	152	17	1076
Klemm, Frank A., New York, N. Y. Telephone-switch.....	230,288	July 20	920	261	18	166
Klemm, Frank A., assignor, by mesne assignments, to People's Telephone Company, New York, N. Y. Telephone-transmitter.....	235,635	Dec. 21	715	203	18	1415
Klemm, William, Pittsburg, Pa. Curtain-cord tightener.....	227,269	May 4	208	60	17	1012
Klett, John C., New York, N. Y. Nursery-chair.....	233,257	Oct. 12	566	156	18	839
Klett, John G., Brooklyn, N. Y. Clasp.....	233,774	Oct. 26	1211	336	18	964
Kletzer, Albert J., St. Louis, Mo. Letter-filing box.....	235,090	Dec. 7	32	10	18	1286
Klier, Andrew, assignor of one-half to T. Wolff, Baltimore, Md. Faucet.....	234,131	Nov. 9	378	103	18	1056
Kline, Aaron K., Somerville, N. J. Car-brake.....	234,293	Nov. 9	572	156	18	1090
Kline, Aaron K., Somerville, N. J. Car-brake.....	234,294	Nov. 9	574	156	18	1090
Kline, Henry, assignor to E. Dennis & Co., Jackson, Mich. Shaft-coupling.....	227,980	May 25	1056	300	17	1181
Kline, John A., Batavia, Ohio. Music-leaf turner.....	234,676	Nov. 23	1079	290	18	1189
Klineline, John W., assignor of one-half interest to R. M. Zearing, Middletown, Pa. Stove-grate.....	225,706	Mar. 23	866	253	17	636

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Klipple, Phillip, Salt Lake City, Utah Ter. Thill-coupling.....	234,483	Nov. 16	817	218	18	1139
Klönne, August, Dortmund, Prussia. Apparatus for the purification of coal-gas.....	231,177	Aug. 17	680	192	18	371
Knabe & Co., William. (See Praeger, Henry, assignor.)						
Kuapp, Gardner, Somerville, Mass. Suspension-bracket.....	235,363	Dec. 14	376	103	18	1352
Knapp, George W., Baltimore, Md., assignor of three-fourths interest to J. C. Matthai, J. E. Ingram, and W. Matthai. Slop-bucket.....	229,714	July 6	234	64	18	43
Knapp, George W., Baltimore, Md. Attaching bottoms to cylindrical metal bodies.....	232,405	Sept. 21	647	178	18	646
Knapp, George W., Baltimore, Md. Sheet-metal vessel.....	232,510	Sept. 21	772	213	18	667
Knapp, John J., Lewisburg, W. Va. Mower.....	228,082	May 25	1168	332	17	1199
Knapp, John T. (See Hurd and Mosher, assignors.)						
Knapp, Oscar, New York, N. Y. Lamp.....	225,935	Mar. 30	1142	325	17	694
Knapp, Theodore B. (See Teasdale, James M., assignor.)						
Kneeland, C. L. (See Smith, Julius G., assignor.)						
Kuepper, H. H. (See Adel, Henry D., assignor.)						
Knetzer, James A., Sr., Fillmore, Ind. Wagon-brake.....	224,444	Feb. 10	545	157	17	312
Knight, David C., Manchester, Mass. Faucet.....	235,091	Dec. 7	33	11	18	1287
Knight, George F., Hicksville, Ohio. Dog for saw-mill carriages.....	233,627	Oct. 26	1050	292	18	936
Knight, George H., assignor of one-fourth interest to A. H. Willard, Providence, R. I. Ink-ing-pad.....	230,424	July 27	1116	313	18	204
Knight, Henry, assignor to T. Griffiths, Liverpool, England. Manufacture of white pigments. (Reissue).....	9,481	Nov. 30	1549		18	1273
Knight, Henry H. (See Peck and Knight.)						
Knight, Horatio W., New York, N. Y. Button.....	232,190	Sept. 14	375	104	18	594
Knight, J. Lee, and S. Smith, Topeka, Kans. Adjustable wash-bowl. (Reissue).....	9,355	Aug. 24	1204	337	18	462
Knight, J. Lee, and S. Smith, Topeka, Kans. Adjustable wash-bowl. (Reissue).....	9,500	Dec. 14	688	196	18	1404
Knight, John L., New York, N. Y. Boat-detaching apparatus.....	231,179	Aug. 17	685	193	18	371
Knight, Joseph I., Mobile, Ala., assignor to himself and S. I. Knight, New York, N. Y. Bale-tie.....	234,786	Nov. 23	1202	325	18	1209
Knight, Joseph I., Mobile, Ala., assignor to himself and S. I. Knight, New York, N. Y. Bale-tie.....	234,787	Nov. 23	1204	325	18	1209
Knight, Joshua, and H. Hilliard, Musquash Parish, New Brunswick, Canada. Holdback for harness.....	224,926	Feb. 24	1120	320	17	433
Knight, Levi J., Manatee, Fla. Fruit-gatherer.....	232,042	Sept. 7	200	54	18	557
Knight, Margaret E., Springfield, Mass., assignor, by mesne assignments, to Eastern Paper Bag Company, Hartford, Conn. Paper-bag machine. (Reissue).....	9,202	May 18	906	259	17	1146
Knight, Samuel I. (See Austin, James A., assignor.)						
Knight, Samuel I. (See Knight, Joseph I., assignor.)						
Knisely, Samuel P. (See Wilgns and Johnson, assignors.)						
Knobeloch, Frank, Buffalo, N. Y. Paper box.....	225,013	Mar. 2	35	10	17	463
Knüchel, Conrad, assignor, by mesne assignment, to Rand Manufacturing Company, Baltimore, Md. Platform rocking-chair.....	224,340	Feb. 10	427	122	17	293
Knollin, Thomas H., Syracuse, N. Y. Key-pedal for piano-fortes.....	225,289	Mar. 9	373	109	17	531
Knopp, Benjamin, Bloomville, Ohio. Post-hole auger.....	232,041	Sept. 7	199	54	18	557
Knott, Kennard, Jr., Holborn, county of Middlesex, Great Britain. Apparatus for producing cold for refrigerating purposes.....	234,788	Nov. 23	1204	325	18	1209
Knowlan, Frank, New York, N. Y. Drilling-machine for Artesian and oil wells.....	234,586	Nov. 16	958	254	18	1163
Knowles, Daniel M., New Bedford, Mass., assignor to J. L. Parmly, E. E. Johnson, and W. L. Baker. Metallic binding for oil-cloth, &c. (Reissue).....	9,330	Aug. 3	298	85	18	296
Knowles, Edward R., Brooklyn, N. Y., assignor to Eastern Electric Manufacturing Company, Middletown, Conn. Electric-light switch.....	227,365	May 11	329	97	17	1043
Knowles, Isaac W., assignor to Knowles, Taylor & Knowles, East Liverpool, Ohio. Covered jug.....	232,730	Sept. 28	1020	281	18	715
Knowles, J. Henry. (See Proctor and Knowles.)						
Knowles, Lucius J., Worcester, Mass. Shuttle-box mechanism for looms.....	227,694	May 18	704	199	17	1114
Knowles, Lucius J., Worcester, Mass. Loom.....	233,937	Nov. 2	126	34	18	1008
Knowles, Lucius J., Worcester, Mass. Wire-heddle for harnesses of fancy-looms.....	235,636	Dec. 21	716	203	18	1415
Knowles, Taylor & Knowles. (See Knowles, Isaac W., assignor.)						
Knowles, Taylor & Knowles. (See Taylor, John N., assignor.)						
Knowlton, Albion, Boston, Mass. Nailing-machine.....	224,339	Feb. 10	426	121	17	293
Knowlton, Albion, Boston, Mass. Nailing-machine.....	225,527	Mar. 16	649	189	17	588
Knowlton, William A. (See Barnard, William S., assignor.)						
Knox, John D. (See Gray, Thomas B., assignor.)						
Knox, John L. L., Allegheny, Pa. Grate for furnaces of steam-boilers.....	229,319	June 29	1399	383	17	1470
Knox, John L. L., Allegheny, Pa. Corn-busking and shuck-making machine.....	235,364	Dec. 14	377	104	18	1352
Knox, Josiah M., Evansville, Ind. Grain-scouring apparatus.....	232,979	Oct. 5	221	60	18	774
Knox, Richard F., and J. Osborn, San Francisco, Cal. Process of and apparatus for reducing mercury ores.....	233,520	Oct. 19	903	249	18	902
Knubley, John W., Boston, assignor of one-half interest to F. Amory, Beverly, S. Snow, Cambridge, E. W. Harmon, Haverhill, and O. J. Noble, Melrose, Mass. Flat wick-tube.....	231,180	Aug. 17	687	193	18	371
Knudson, Adolphus A., and F. L. Kane; said Kane assignor to J. R. Kane, Brooklyn, N. Y. Insulating compound.....	230,878	Aug. 10	339	98	18	310
Knudson, Adolphus A., Brooklyn, N. Y. Lightning-guard for oil-tanks.....	234,484	Nov. 16	817	219	18	1139
Knudson, Hans, assignor to himself and H. S. Grinde, De Forest, Wis. Dynamometrical engine-governor.....	229,713	July 6	233	64	18	42
Knueppel, Herman, St. Louis, Mo. Window-sash.....	230,024	July 13	598	166	18	106
Knuth, John R., New York, N. Y. Dumping-scow.....	227,019	Apr. 27	1046	290	17	951
Koch, August W., Covington, Ky. Desk.....	224,294	Feb. 10	373	107	17	285
Koch, Sons & Co. (See Hafely, Alfred C., assignor.)						
Koch, Sons & Co. (See Vorpahl and Pohl, assignors.)						
Koch, Victor. (See Moseley and Koch.)						
Koch, William, and W. Wiese, New York, N. Y. Sewing-machine.....	234,587	Nov. 16	960	255	18	1163
Kochs, Theodore A. (See Candrian, Herman A., assignor.)						
Koeller, Hermann, New York, and C. Nimmo, Green Point, N. Y. Oil-drip cup.....	233,519	Oct. 19	903	249	18	902
Koenig, George A., Philadelphia, Pa. Extracting silver from ores.....	235,784	Dec. 21	885	247	18	1444
Koesewitz, Franz, Hamburg, Germany. Flame-regulating device.....	223,678	Jan. 20	579	155	17	121
Koetzer, Charles H., assignor of one-half interest to J. A. G. Goetz, Baltimore, Md. Faucet.....	232,594	Oct. 5	120	32	18	758
Köházy, Franz. (See Thomer and Köházy.)						
Kohler, Frederick E., assignor of one-half interest to I. Harter, Canton, Ohio. Horse-rake.....	225,290	Mar. 9	375	109	17	532
Kohler, Frederick E., Canton, Ohio. Horse-rake.....	234,988	Nov. 30	1459	393	18	1258
Köhler, Friedrich, Ludwigshafen am Rhein, assignor to Badische Anilin and Soda Fabrik, Baden, Germany. Dye-stuff or coloring-matter.....	224,927	Feb. 24	1121		17	433

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Köhler, Friedrich, Ludwigshafen am Rhein, assignor to Badische Anilin and Soda Fabrik, Baden, Germany. Dye-stuff or coloring-matter.....	224,928	Feb. 24	1121	.....	17	433
Köhler, Joseph, and L. Arnold, Cincinnati, Ohio. Faucet.....	231,178	Aug. 17	684	193	18	371
Köhler, William C., Troy, Ill. Wagon-brake.....	223,232	Jan. 6	30	7	17	7
Kohlhofer, August, Munich, Bavaria. Furnace-grate.....	225,146	Mar. 2	190	53	17	489
Kohn, Tobias, Hartford, Conn. Wire stiffening-ribbon.....	231,176	Aug. 17	680	192	18	371
Köhnmann, John, assignor to himself and S. L. Latta, Dyersburg, Tenn. Device for closing gates.....	227,794	May 18	819	232	17	1131
Kohr, Samuel M., Omaha, Nebr. Butter-package.....	226,524	Apr. 13	447	125	17	832
Kolb, Adam, and C. Osberghaus, assignors of one-third interest to G. Bachmann, Jr., Sandusky, Ohio. Sash-fastening.....	229,894	July 13	450	125	18	84
Kolle, Dallitor, Ripon, Wis. Vehicle-wheel hub.....	233,776	Oct. 26	1212	336	18	964
König, Johan L., Baltimore, Md. Cabinet-maker's clamp.....	226,617	Apr. 20	569	158	17	864
Konrad, William, assignor of two-thirds interest to H. Horn and L. Boche, Chicago, Ill. Detachable cover for glasses.....	230,188	July 20	800	220	18	148
Kooker, Alfred G. (See Bean and Kooker.)						
Koons, Gerow, St. Louis, Mo. Automatic-measuring milk-can.....	230,136	July 20	741	207	18	138
Koontz, Ezra P., Ligonier, Ind. Refrigerator.....	225,063	Mar. 2	102	29	17	474
Koplin, James L., Rockford, Ill. Rotary coal-sifter.....	224,341	Feb. 10	428	122 } 123 }	17	293
Kopp, Robert W. H., Washington, D. C. Fire-escape.....	230,555	July 27	1263	356	18	229
Koppelman, Charles, et al. (See McAvoy, Hugh L., assignor.)						
Koppes, William M., Orrville, Ohio. Thrashing-machine and clover-huller.....	235,256	Dec. 7	233	63	18	1319
Korff, John, Boston, Mass. Catemenial sack.....	235,884	Dec. 28	1038	284	18	1476
Korns, Lewis F., Sycamore, Ill. Fountain-pen.....	230,706	Aug. 3	130	38	18	268
Kortick, Frank, San Francisco, Cal. Snap-hook.....	225,756	Mar. 23	929	269	17	646
Koschwitz, Henry O., Brooklyn, N. Y. Manufacture of buttons, &c.....	234,989	Nov. 30	1460	393	18	1258
Koska, Reinhold P. H., East Saginaw, Mich. Egg-tongs.....	227,633	May 18	630	180	17	1103
Koskul, Frederick, Grand Rapids, Mich. Ornamental veneering.....	233,775	Oct. 26	1211	.....	18	964
Kossuth, Joseph, New Britain, Conn. Corkscrew.....	230,877	Aug. 10	338	98	18	310
Kowalski, William. (See Gunther and Kowalski.)						
Kraemer, William, Chicago, Ill., assignor of one-half interest to C. G. Von Platen. Shoe-fastening.....	225,477	Mar. 16	594	172	17	579
Kraengel, Frederic, assignor of one-half interest to E. and A. Jetter, Buffalo, N. Y. Bench-plane.....	231,331	Aug. 17	853	240	18	398
Kraengel, Frederic, assignor of one-half interest to E. and A. Jetter, Buffalo, N. Y. Nail-extractor.....	231,332	Aug. 17	854	240	18	399
Kraft, George W., Jr., Philadelphia, Pa. Vehicle-wheel.....	231,333	Aug. 17	855	240	18	399
Krajewski, Thomas F., Paterson, N. J. Running-gear for vehicles.....	235,785	Dec. 21	886	248	18	1444
Krajewski, Thomas F., New York, N. Y. Portable railway-track.....	235,786	Dec. 21	888	248	18	1444
Krake, John A., Buffalo, N. Y. Grain-separator.....	223,233	Jan. 6	30	7	17	8
Kramer, Albert W. (See Miller, Lewis, assignor.)						
Kramer, Homer D., Beaver, Pa. Making-door-plates.....	223,740	Jan. 20	639	172	17	131
Kramer, John W., New York, N. Y. Turn-out for railways.....	227,795	May 18	820	232	17	1132
Kramer, William J., and L. Miller, Oil City, Pa. Land-marker.....	224,929	Feb. 24	1122	320	17	433
Kranich, Hellmuth, and J. Bach, New York, N. Y. Piano-forte action.....	233,103	Oct. 12	385	105	18	807
Kratz, George, Evansville, Ind. Pump and feed-water heater.....	228,538	June 8	451	123	17	1307
Kratz, George, Evansville, Ind. Steam-boiler attachment. (Reissue).....	9,347	Aug. 17	917	258	18	410
Kraus, Ernest E., Tompkinsville, N. Y. Picture-nail.....	231,334	Aug. 17	856	241	18	399
Krause, Earnest J., Carlisle, Pa. Fire-escape ladder.....	236,044	Dec. 28	1224	338	18	1507
Krause, Frederick W., Chicago, Ill. Sickie-grinder.....	227,366	May 11	330	97	17	1043
Krauss, Harrison Y., Kraussdale, Pa. Endless-chain horse-power.....	224,445	Feb. 10	546	157	17	312
Kreamer, James M. (See Nebinger, George R., assignor.)						
Krebs, George J., Fremont, Ohio. Post-office delivery-window.....	226,759	Apr. 20	723	201 } 202 }	17	888
Krebs, Rufus L. (See Newland, Sylvester F., assignor.)						
Kremer, Frank W. (See Fahs, Belden, and Kremer.)						
Kretsinger, Fred S., Fort Madison, Iowa. Scythe-fastening.....	227,271	May 4	209	61	17	1012
Kretsinger, William H., Fort Madison, Iowa. Manufacture of rakes.....	233,679	Oct. 26	1107	308	18	946
Krentzer, Carl, New York, N. Y. Game-bat.....	236,045	Dec. 28	1225	338	18	1507
Kriebel, Hosea K., West Point, Pa., assignor of one-half interest to F. Light, Jr., Gonzales, Tex. Portable steam-engine. (Reissue).....	9,351	Aug. 24	1198	335 } 336 }	18	461
Kriebs, John. (See Paffner and Kriebs.)						
Krieger, John G., Washington, D. C. Bottle-stopper.....	228,650	June 8	591	157	17	1328
Kritch, Jacob. (See Bliss, Francis D., assignor.)						
Kritch, Jacob, Cleveland, Ohio, assignor of one-half to F. D. Bliss, New Haven, Conn. Machine for shaping the arms or spindles of axles.....	235,440	Dec. 14	471	133	18	1368
Kroeber, Florence. (See Scheina, Josef, assignor.)						
Kroeber, Florence, New York, N. Y. Alarm-clock.....	228,202	June 1	46	15	17	1235
Kroeber, Frederick W., Idaho City, Idaho Ter. Paper bag.....	231,056	Aug. 10	530	149	18	339
Krohn, Reuben F., Sunbury, Pa. Car-coupling.....	225,840	Mar. 23	1018	293	17	660
Kromer, Otto, and F. Rinkleff, Sandusky, Ohio. Harvester.....	225,064	Mar. 2	103	29	17	474
Kroog, Johann, Halle-on-the-Saale, Prussia. Filter.....	231,335	Aug. 17	857	241	18	399
Kropff, Oscar, Nordhausen, A. H., Germany. Air-cooling apparatus.....	227,796	May 18	821	232	17	1132
Kropff, Oscar, Nordhausen, Germany. Apparatus for freeing water from atmospheric air.....	230,025	July 13	599	166	18	107
Kropff, Oscar, Nordhausen, Germany. Ammonia-boiler for ice-machines.....	235,441	Dec. 14	473	134	18	1368
Kropff, Oscar, Nordhausen-on-the-Harz, Germany. Ice-machine.....	235,950	Dec. 28	1114	307	18	1490
Krouse, Samuel R., assignor to A. B. Elfelt, A. A. Levi, S. Goldsmith, and A. P. Elfelt, San Francisco, Cal. Overalls.....	227,981	May 25	1057	301	17	1181
Krueger, August C., Chicago, Ill. Machine for treating raw hides.....	235,442	Dec. 14	474	134	18	1368
Krug, Philipp, New York, N. Y. Two-way cock for beer and other casks.....	227,797	May 18	822	232	17	1132
Krüger, Theodore C. H., San Marcos, Tex. Corn and cotton planter.....	231,818	Aug. 31	1421	400	18	502
Krupp, Alfred, Essen, Germany. Manufacture of iron and steel.....	234,789	Nov. 23	1207	.....	18	1209
Krupp, Carl, Vienna, Austria. Rotary motor.....	228,906	June 15	920	251	17	1385
Kryzinski, Anastasius, assignor of one-half interest to J. Osik, Chicago, Ill. Composition for covering moldings.....	223,593	Jan. 13	471	.....	17	95
Kuehborth, Philip P., Greenup, Ky. Sash-holder.....	234,043	Nov. 2	270	73	18	1031
Kuehne, Ernst, and D. W. Bryant, Chicago, Ill. Mill-spindle bush.....	231,962	Sept. 7	113	28	18	542
Kuehnert, Robert. (See Fink, Carl, assignor.)						
Kuhn, Augustus J., Lewistown, Pa. Drying apparatus.....	227,020	Apr. 27	1047	291	17	951
Kuhn, David I., Penn township, Allegheny county, Pa. Dog-power machine.....	233,420	Oct. 19	792	219	18	884
Kuhns, Benjamin. (See Kuhns, Edward, assignor.) (Reissue.)						
Kuhns, Daniel Y., assignor to Farmers Friend Manufacturing Company, Dayton, Ohio. Corn-planter.....	235,257	Dec. 7	233	64	18	1320

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Kuhns, Edward, Logansport, Ind., assignor to B. Kuhns. Grain-drill. (Reissue).....	9,066	Feb. 3	332	95	17	258
Kuichling, Emil, assignor to himself and J. N. Tubbs, Rochester, N. Y. Hydrant.....	232,646	Sept. 28	926	253	18	700
Kulp, Henry G. (See Keiser, Florenz, assignor.)						
Kulp, Isaac R. (See Wright, William A., assignor.)						
Kunkel, Daniel, Sr., Oregon, Mo. Car-coupling.....	234,990	Nov. 30	1461	393	18	1258
Kuntz, John. (See Pritchard, Charles L., assignor.)						
Kupfer, Heinrich, Chicago, Ill. Aerator.....	232,980	Oct. 5	222	60	18	775
Kursh, Frank, Philadelphia, Pa. Enameling jewelry, &c.....	227,021	Apr. 27	1048	291	17	952
Kursh, Frank, Philadelphia, Pa. Bracelet.....	235,637	Dec. 21	717	204	18	1416
Kursheedt, Frederick A. (See Brown, John H., assignor.)						
Kursheedt, Frederic A. (See Brown, John H., assignor.) (Reissue.)						
Kurtz, Abraham B., Cincinnati, Ohio. Thill-coupling.....	227,367	May 11	330	97	17	1043
Kurtz, William, New York, N. Y. Producing photographic pictures.....	225,478	Mar. 16	595		17	579
Kurtz, William, New York, N. Y. Method of and apparatus for tinting drawings and photographs.....	226,760	Apr. 20	724	202	17	888
Kurz, Christoph F., Newark, N. J. Low-water indicator.....	234,225	Nov. 9	575	156	18	1091
Kwaysser, Vincenz, and R. Husak, Semil, Bohemia, Austria, assignors to C. H. Green, London, England. Dry-copying process.....	228,362	June 1	227	64	17	1264
Kynaston, Josiah W. (See Chadwick and Kynaston.)						
Kyser, Louis, and A. C. Rex, Philadelphia, Pa. Toy money-box.....	232,511	Sept. 21	773	214	18	667
Kyser, Louis, and A. C. Rex, Philadelphia, Pa. Toy money-box.....	232,512	Sept. 21	774	214	18	667
Kyser, Louis, and A. C. Rex, Philadelphia, Pa. Bell-toy.....	233,628	Oct. 26	1051	293	18	936
Kyser, Louis, and A. C. Rex, Philadelphia, Pa. Toy mortar.....	234,132	Nov. 9	378	104	18	1056
La Bar, James P., Milford, Mich. Hoisting apparatus.....	229,149	June 22	1202	329	17	1434
Labaree, John W. (See Atwood, James B., assignor.)						
La Barge, Charles L. and H. S., St. Louis, Mo. Incubator.....	235,787	Dec. 21	889	248	18	1444
La Barge, Henry S. (See La Barge, Charles L. and H. S.)						
Labois, Elie C. E. and L. L., Paris, France. Manufacture of carbon bisulphide and sulphuric acid from pyrites, and apparatus therefor.....	233,680	Oct. 26	1107	308	18	946
Labois, Léon L. (See Labois, Elie C. E. and L. L.)						
Labounty, Leonard J., Lowell, Mass. Paper-holder.....	224,547	Feb. 17	666	190	17	343
Lachèze, Emile, Dijon, France. Reaping and mowing machine.....	232,513	Sept. 21	775	214	18	667
Lackey, Nathan T., Brownsburg, Va. Washing-machine.....	232,135	Sept. 14	306	86	18	582
Lacock, Theodore W., Kittanning, Pa. Combined barrel-cover and sample-case.....	233,258	Oct. 12	566	157	18	839
Ladenberger, Frederick D., and W. V. Hazelton, Glenbeulah, Wis. Wagon-brake.....	230,027	July 13	600	166	18	107
Ladewig, Herrman. (See Moseler and Ladewig.)						
Ladner, John, Charlestown, Mass. Vehicle-wheel.....	234,589	Nov. 16	963	255	18	1163
Ladner, John, Charlestown, Mass. Car-starter.....	234,590	Nov. 16	964	256	18	1164
La Dow, Charles. (See Guptail, Dan, assignor.) (Reissue.)						
La Dow, Charles. (See Johnson, Moses, assignor.) (Reissue.)						
La Dow, Charles. (See Palmer, George N., assignor.) (Reissue.)						
La Dow, Charles, Albany, N. Y. Wheel-barrow.....	225,394	Mar. 9	487	{ 142 143 }	17	551
La Dow, Charles, Albany, N. Y. Combined seeder and cultivator.....	226,233	Apr. 6	99	27	17	763
La Dow, Charles, Albany, N. Y. Harrow.....	233,777	Oct. 26	1213	337	18	965
La Dow, John, assignor of one-half to O. H. P. Cornell, Albany, N. Y. Printer's chase.....	234,877	Nov. 30	1323	{ 356 357 }	18	1235
Ladry, Florent, Brussels, Belgium. Indicator for steam-boilers.....	232,981	Oct. 5	223	60	18	775
La Farge, John, Newport, R. I. Colored-glass window.....	224,831	Feb. 24	1016	287	17	416
Lafeber, James, Indianapolis, Ind. Soil-pulverizer.....	223,927	Jan. 27	884	235	17	181
Lafever, Minard. (See Marsh, Elon A., assignor.)						
Lafferty, Robert, Gloucester City, N. J. Centrifugal machine.....	235,638	Dec. 21	717	204	18	1416
Lafite, Charles, Paris, France. Pantaloon-brace.....	230,289	July 20	921	262	18	166
Lafin, Perley, Warren, Mass. Corset-clasp.....	229,617	July 6	124	34	18	27
La France, Asa W., Elmira, N. Y. Smoke-stack.....	227,272	May 4	210	61	17	1012
La France, Truckson S., Elmira, N. Y. Fire-engine boiler.....	231,336	Aug. 17	859	241	18	399
Lagler, Charles. (See Oley, Nicholas, assignor.)						
Lagowitz, Jacob. (See Frankel, Alexander C., assignor.)						
Lain, James M., Bay City, Mich. Brinc-agitator.....	235,155	Dec. 7	115	33	18	1300
Laird, James G., Ontario township, Knox county, Ill. Gate-hanger.....	229,148	June 22	1201	329	17	1434
Lake, J. Christopher, Camden, N. J. Curtain-roller.....	223,594	Jan. 13	471	127	17	95
Lake, J. Christopher, Philadelphia, Pa. Spring shade-roller.....	223,595	Jan. 13	473	128	17	95
Lake, John C., Big Prairie, Ohio. Rein-holder.....	233,521	Oct. 19	905	249	18	903
Lake, William W., and M. E. Weller; said Lake assignor of one-half interest to F. P. Wemple, Fort Plain, N. Y. Machine for grinding glass, &c.....	225,619	Mar. 16	752	222	17	607
Lakin, Hartwell. (See Wilson, Orville A., assignor.)						
Lalanc & Grosjean Manufacturing Company of New York. (See Chaumont, Jules, assignor.)						
Lalime, Jean B. (See Langlois, Joseph, assignor.)						
Lally, James, Kendall, N. Y. Trace-buckle.....	223,448	Jan. 13	295	78	17	66
Lally, James, Kendall, N. Y. Trace-buckle.....	234,991	Nov. 30	1462	393	18	1259
Lally, Michael, North Lawrence, Ohio, assignor to himself and W. J. Fryer, New York, N. Y. Elevator-bucket.....	233,523	Oct. 19	907	250	18	903
Lally, William, et al. (See Barkley, James, assignor.)						
Lamar, James S., Augusta, Ga. Electro-magnetic motor.....	225,395	Mar. 9	491	143	17	551
Lamb, Calvin, et al. (See Copeland, Samuel R., assignor.)						
Lamb, Charles, Binghamton, N. Y., assignor of three-fourths interest to R. A. Ford, W. L. Mudge, and H. Dusenbury. Hand-stamp.....	230,879	Aug. 10	340	98	18	310
Lamb, Daniel M., New York, N. Y. Waterproofing compound.....	224,295	Feb. 10	374		17	285
Lamb, Daniel M., New York, N. Y. Moth and waterproofing compound.....	224,296	Feb. 10	375		17	285
Lamb, Daniel M., New York, N. Y. Moth and waterproofing compound.....	224,297	Feb. 10	377		17	285
Lamb, Edward L., Chicago, Ill. Casting rolls.....	225,479	Mar. 16	595	172	17	579
Lamb, Francis H., Ravenna, Ohio. Bed-lounge.....	223,234	Jan. 6	33	8	17	8
Lamb, Franklin W., Hydesville, Cal. Gate.....	229,147	June 22	1200	329	17	1434
Lamb Knitting Machine Company. (See Marshall, Moses, assignor.)						
Lamb, Patrick W., Albany, N. Y. Flue-cleaner.....	232,406	Sept. 21	648	178	18	646
Lamb, Patrick W., Albany, N. Y. Boiler-furnace.....	235,686	Dec. 21	772	219	18	1425
Lamb, Restore B., assignor of one-half interest to J. Cooper, A. Reeve, and E. Z. Collings, Camden, N. J. Underground conduit for telegraph-conductors.....	229,259	June 29	1321	364	17	1460
Lamb, Thomas C., Chicago, Ill. Marble-venecering.....	225,618	Mar. 16	751		17	607
Lambert, Henry E., Pittsburg, Pa. Metal felly for wheels.....	225,225	Mar. 9	289	82	17	519
Lambert, James T. (See Clark and Lambert.)						
Lambert, James T., Detroit, Mich. Stove.....	231,819	Aug. 31	1422	400	18	503
Lambert, Jules, assignor to A. and H. Veith, New York, N. Y. Flitter for milliners' trimmings.....	228,363	June 1	228	65	17	1264



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Lambert, Thomas S., New York, N. Y. Tramway-rail .....	226,864	Apr. 27	856	238	17	921
Lambert, Thomas S., New York, N. Y. Box .....	234,297	Nov. 9	578	157	18	1091
Lambert, Thomas S., and J. S. Huyler, New York, N. Y. Hygienic oatmeal confection ..	234,298	Nov. 9	579	.....	18	1092
Lambertville Manufacturing Company. (See Barber, Henry R., assignor.)						
Lambeth, Samuel W. (See Lincoln, William O., assignor.)						
Lambeth, Samuel W. (See Opdyke, Stacy B., assignor.)						
Lambeth, Samuel W. (See Stoddard, Samuel G., assignor.)						
Lambeth, Samuel W., Philadelphia, Pa. Fly-fan .....	234,713	Nov. 23	1116	301	18	1195
Lambkin, Edwin, Can. Mich. Double-acting lever .....	223,928	Jan. 27	886	235	17	181
Lamont, Alexander. (See Lamont, John, assignor.)						
Lamont, John, assignor of one-half interest to A. Lament, Rochester, N. Y. Blacking-box ..	223,929	Jan. 27	886	235	17	181
Lamont, John, assignor of one-half interest to A. Lament, Rochester, N. Y. Fruit-crusher ..	229,425	June 29	1521	420	17	1486
Lament, John G., Chelsea, Mass. Rain-water conductor .....	233,938	Nov. 2	127	35	18	1008
Lamoroux, Charles, et al. (See Day, John R., assignor.)						
L'Amoureux, Chauncey H., New York, N. Y. Chimney-cap .....	230,483	July 27	1187	334	18	216
Lampe, Otto, Hamburg, Germany. Securing calks to horseshoes .....	236,046	Dec. 23	1226	338	18	1509
Lampert, Jacob, Stevens Point, Wis. Chop-separator and bran-cleaner .....	226,234	Apr. 6	103	27, 28	17	764
Lampert, William, and H. Huber, Crestline, assignors of one-half interest to Butler, Earhart & Co., Columbus, Ohio. Bretzel-machine .....	224,446	Feb. 10	547	157	17	313
Lampert, William, Crestline, Ohio. Apparatus and process for preparing bretzels previous to baking .....	229,320	June 29	1401	384	17	1470
Lampton, Flavius J., Hammonton, Ky. Rotary harrow .....	232,355	Sept. 21	585	161	18	636
Lampton, Flavius J., Hammonton, Ky. Reaper .....	233,250	Oct. 12	567	157	18	839
Lamson, Edwin, et al. (See Eaton, Charles S., assignor.)						
Lamson, Frank G., and D. C. King, Boston, Mass. Machine for heating the edges of hat-brims .....	224,298	Feb. 10	378	107	17	285
Lancaster, Henry P. (See Nichols and Lancaster.)						
Lancaster, William, Santa Rosa, Cal. Eye-shade .....	230,556	July 27	1264	357	18	229
Land, Charles H., Detroit, Mich. Baby-jumper .....	230,707	Aug. 3	131	38, 39	18	268
Land, Horatio N., and H. Campbell, Richmond, Ind. Steering-gear for traction-vehicles ..	229,715	July 6	235	65	18	43
Landers, Frary & Clark. (See Webb, Rodolphus L., assignor.)						
Landers, John E. (See Gaines, George B., assignor.)						
Laudin, Henry, Forest, Ohio. Post-hole borer .....	234,992	Nov. 30	1463	394	18	1259
Landis, Israel L. (See Colvin, Robert J., assignor.)						
Landis, Israel L. (See Iske, Anthony, assignor.)						
Landis, Israel L. (See Iske, Anthony and A., assignors.)						
Landis, Israel L., Lancaster, Pa. Buckle for harness. (Reissue) .....	9,088	Feb. 17	929	265	17	388
Landis, Israel L., Lancaster, Pa. Buckle .....	225,147	Mar. 2	191	54	17	489
Landis, Israel L., Lancaster, Pa. Buckle .....	227,798	May 18	823	233	17	1132
Landsberg, Albert, assignor to L. Black & Co., Detroit, Mich. Eyeglass .....	233,681	Oct. 26	1109	308	18	947
Lane, Alfred J. (See Amor and Lane.)						
Lane, Almeron M., Winsted, Conn. Railway time-signal .....	234,296	Nov. 9	576	157	18	1091
Lane, C. Marcellus. (See Hall and Lane.)						
Lane, Frederick W., assignor to C. B. Shedd, Chicago, Ill. Device for cutting off weeds, &c., under water .....	223,521	Jan. 13	385	102	17	80
Lane, George, Brooklyn, N. Y. Pen-wiper .....	235,788	Dec. 21	891	249	18	1445
Lane, George F. (See Hall and Lane, assignors.)						
Lane, George H. (See Stevens, Lucious O., assignor.)						
Lane, George M., Asbury Park, N. J. Spring-hinge .....	230,949	Aug. 10	412	119	18	321
Lane, John, Hyde Park, Ill. Cast-steel plate for edge-tools .....	230,948	Aug. 10	411	118	18	321
Lane, Rufus B., Stockton, Cal. Machine for making paper-pulp from wood .....	233,105	Oct. 12	386	106	18	808
Lane, Thomas W., Boston, assignor to himself and C. Williams, Jr., Somerville, Mass. Electrical annunciator .....	234,993	Nov. 30	1463	394	18	1259
Lane, Turner H., assignor of one-half interest to P. A. Ritter, Memphis, Tenn. Chamber-muffler .....	228,539	June 8	453	123	17	1307
Lane, William J., Millbrook, N. Y. Sheave or roller for sliding doors .....	231,820	Aug. 31	1423	400	18	503
Lane, William J., Millbrook, N. Y. Registering attachment for faucets .....	232,277	Sept. 14	480	{ 133 134 }	18	612
Lane, William T., and J. P. Avery, Norwich, Conn. Machine for pressing and ornamenting harness-loops .....	226,761	Apr. 20	725	202	17	888
Lauey, William S., Lithopolis, Ohio. Pump .....	228,203	June 1	47	15	17	1235
Lanfair, John Y., Hill View, N. Y. Churn .....	230,484	July 27	1188	{ 334 335 }	18	216
Lang, Edward M. (See Bruce, Elgin K. and J. M., assignors.) (Reissue.)						
Lang, J. C. (See Thompson, Gilbert, assignor.)						
Lang, J. P. Theodore, Washington, D. C. Car-replacer .....	223,290	Jan. 6	101	24	17	19
Lang, William, Williamsburg, N. Y. Lock for traveling-bags .....	227,905	May 25	963	276	17	1166
Langdon, Sylvester L., New Orleans, La. Steam-boiler .....	224,447	Feb. 10	547	157	17	313
Langdon, William, Upland, Pa. Spirit-level .....	232,982	Oct. 5	224	61	18	775
Langen, Eugen, Cologne, Germany. Apparatus for liquoring lump-sugar .....	226,078	Mar. 30	1317	371	17	721
Langen, Eugen, Cologne, Prussia, Germany. Centrifugal machine .....	235,259	Dec. 7	237	65	18	1320
Langley, John W., Ann Arbor, Mich. Electric lamp .....	235,258	Dec. 7	236	64, 65	18	1320
Langlois, Joseph, assignor to himself and J. B. Lalime, St. Johns, Quebec, Canada. Heel-trimming machine .....	229,426	June 29	1522	420	17	1486
Langmaak, Friedrich, and P. Streiff, San Francisco, Cal. Velocipede .....	228,908	June 15	924	251	17	1385
Langmaid, Charles E., Stoneham, Mass. Shingler's bracket .....	230,425	July 27	1117	314	18	204
Langner, William, Reading, Pa. Coffee-roaster .....	230,189	July 20	800	226	18	148
Langschmidt, Johan H., Chicago, Ill. Sink-trap .....	233,104	Oct. 12	386	106	18	808
Langston, Thomas, assignor to E. Miller & Co., Meriden, Conn. Lantern .....	234,703	Feb. 17	843	240	17	373
Langston, T. Judson, Johnston, S. C. Car-starter .....	232,043	Sept. 7	201	54, 55	18	558
Langworthy, John F., and G. E. Norris, Glens Falls, N. Y. Starching-machine .....	225,149	Mar. 2	192	54	17	489
Lanigan, Thomas. (See Percefull, Zeadeck R., assignor.)						
Lanman, Henry A. (See Richardson, Julius C., assignor.)						
Lannay, Edouard, Lima, Ohio. Pump .....	225,148	Mar. 2	191	54	17	489
Lanning, Edward, Iowa City, Iowa. Pivot-gate .....	230,291	July 20	922	262	18	166
Lanphear, Edson, Lincoln Centre, Kans. Windmill .....	232,514	Sept. 21	776	215	18	667
Lanphere, Lydia J., Waterloo, Iowa. Shutter-worker .....	230,026	July 13	600	166	18	107
Lansburg, Max, New York, N. Y. Filtering apparatus .....	223,741	Jan. 20	639	172	17	131
Lanstrom, Reinhold, Oakley, Ohio. Fabric for sweat-bands for hats, &c. ....	233,629	Oct. 26	1052	.....	18	937
Lantz, Jackson. (See Van Vliet, Warren R., assignor.)						
Lanum, Richard B., assignor to E. P. Wright and J. N. Cook, Circleville, Ohio. Grave-torpedo .....	228,651	June 8	591	157	17	1328
Lanz, Charles, Pittsburg, Pa. Die for forging eyes on the ends of rods .....	228,907	June 15	922	251	17	1385
Lanz, Charles, Pittsburg, Pa. Manufacture of hinges .....	231,590	Aug. 24	1145	320	18	452

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Lanz, George, <i>et al.</i> (See Owen, Richard W., assignor.)						
Lapham, George F., Sandwich, Mass. Polishing glass.....	230,137	July 20	743	.....	18	138
Laporte, Michel E., Bordeaux, France. Apparatus for cleaning railway-tracks.....	235,539	Dec. 14	596	170	18	1389
Laraway, George W., and F. C. Rockwell, Hartford, Conn. Chain-pump bucket.....	234,588	Nov. 16	962	255	18	1163
Laraway, Jerome. (See Laraway, Ransom K. and J.)						
Laraway, Ransom K. and J., Battle Creek, Mich. Grain-binder.....	230,292	July 20	923	263	18	166
Larchar, Joseph W., Albany, N. Y. Attachment for picture-frames.....	226,762	Apr. 20	726	203	17	888
Larouche, Theophilus, Williamstown, N. Y. Thill-coupling.....	231,057	Aug. 10	531	149	18	339
Laroussie, Paul, New York, N. Y., assignor to Howard & Scherrieble, Providence, R. I. Button and stud.....	229,428	June 29	1526	421	17	1487
Larrabee, Charles R., <i>et al.</i> (See Bullard, Charles W., assignor.)						
Larrowe, Albertus and E., Cohocton, N. Y. Animal-poke.....	229,618	July 6	125	34	18	27
Larrowe, Erwin. (See Larrowe, Albertus and E.)						
Larsen, John. (See Galloway and Larsen.)						
Larsen, Niels C., Sacramento, Cal. Purse or satchel fastener.....	227,022	Apr. 27	1049	291	17	952
Larsen, Niels C., New York, N. Y. Game apparatus.....	236,047	Dec. 28	1227	339	18	1508
Larsen, Theodore N., assignor of one-half interest to A. Wardall, St. Ansgar, Iowa. Well-drilling apparatus.....	232,191	Sept. 14	376	104	18	594
Larson, Albert J., Santa Paula, Cal. Hame-ring.....	227,982	May 25	1058	301	17	1181
Larson, Paul. (See Sweatt, Leroy A., assignor.)						
Larson, Swan, Monmouth, Ill. Nut-lock.....	224,448	Feb. 10	549	158	17	313
Larter, Robert, East Orange, assignor of one-half interest to B. Bloemeke, Newark, N. J. Clothes line and clamp.....	226,235	Apr. 6	104	28	17	764
Larter, Robert, East Orange, assignor of one-half interest to B. Bloemeke, Newark, N. J. Clothes-drier.....	229,831	July 13	382	106	18	73
La Salle, B. Frank, assignor of one-half interest to G. W. Archer, Rochester, N. Y. Dental plugger.....	226,177	Apr. 6	36	9	17	752
Lasar, Maks J., <i>et al.</i> (See Rosenfeld, Israil L., assignor.)						
Lascell, George W., <i>et al.</i> (See Hudson and Burrill, assignors.)						
Lash, Abram. (See Sinclair, James A., assignor.)						
Lash, John S., Philadelphia, Pa. Bracket-hook.....	228,652	June 8	592	158	17	1328
Laskey, John H., Boston, Mass. Self-leveling dining-table for vessels.....	233,778	Oct. 26	1214	337	18	965
Latham, Adolphus, Tippecanoe town, Ind. Plow-truck.....	232,515	Sept. 21	777	215	18	667
Latham, Baldwin, and J. T. Way, Kensington, England. Apparatus for regulating the temperature of water and other liquids.....	231,058	Aug. 10	531	149	18	340
Lathrop, Francis C. (See Woodward, Orator F., assignor.)						
Lathrop, Horace A. (See Griswold, Henry J., assignor.)						
Lathrop, Levi B., Hollister, Cal. Hay-press.....	225,396	Mar. 9	493	143	17	552
Lathrop, Levi B., Hollister, Cal. Thill-coupling.....	234,591	Nov. 16	965	256	18	1164
Latsbaugh, John C., Decatur, Ill. Ink-well.....	229,260	June 29	1322	364	17	1460
Latshaw, John, <i>et al.</i> (See Fankner, James J., assignor.)						
Latta, Emmet G., Friendship, assignor of one-half interest to H. D. Blakeslee, Buffalo, N. Y. Halter-trimming.....	230,717	July 6	237	65	18	43
Latta, Emmet G., Friendship, assignor of one-fourth interest to Pratt & Letchworth, Buffalo, N. Y. Cockeye.....	232,278	Sept. 14	481	134	18	612
Latta, Finley, Cincinnati, Ohio. Machine for grinding corks.....	231,591	Aug. 24	1145	320	18	452
Latta, Samuel R. (See Jennings, William A., assignor.)						
Latta, Samuel R. (See Köhnmann, John, assignor.)						
Latta, William J., and S. W. Neall, Philadelphia, Pa. Grain-car door.....	229,716	July 6	236	65	18	43
Lander, George, Pittsburg, Pa. Coal-washing machine.....	228,465	June 8	360	98	17	1294
Laufkotter, Frank, Collinsville, Ill. Safety-stop for elevators.....	227,799	May 18	824	233	17	1132
Laughlin, David F., assignor of two-thirds interest to J. Manning, Clyde, and J. H. Ranney, Agenda, Kans. Hay-burning attachment for stoves.....	230,786	Aug. 3	215	62	18	281
Laughlin, Joseph M., Boston, assignor to Bridgewater Iron Company, Bridgewater, Mass. } Horseshoe-nail machine.....	230,950	Aug. 10	413	{ 119 120	18	321
Laughlin, Joseph M., Boston, assignor to Bridgewater Iron Company, Bridgewater, Mass. Making horseshoe-nails.....	232,895	Oct. 5	120	32	18	758
Laughlin, Joseph M., Boston, assignor to Bridgewater Iron Company, Bridgewater, Mass. Manufacture of horseshoe-nail plates.....	233,357	Oct. 19	712	194	18	870
Laughlin, Joseph M., Boston, assignor to Bridgewater Iron Company, Bridgewater, Mass. Manufacturing horseshoe-nails.....	235,540	Dec. 14	597	170	18	1389
Lauhoff, William, Detroit, Mich. Apparatus for trimming or smutting wheat, &c.....	230,138	July 20	743	207	18	139
Laur, Francis, Paris, France, assignor to Harrison Brothers & Co., Philadelphia, Pa. Manufacture of aluminous cake. (Reissue).....	9,340	Aug. 10	626	.....	18	356
Laurence, Henry, Chicago, Ill. Rotary engine.....	230,880	Aug. 10	342	99	18	310
Laurence, Nicholas C. N., and E. G. Matzka, Detroit, Mich. Gilding process.....	229,427	June 29	1525	.....	17	1487
Laury, Lewis. (See Dean, Abiathar W., assignor.)						
Lauten, Frank H., New York, N. Y. Paper-feeding machine.....	223,742	Jan. 20	642	{ 172 173	17	131
Lautenschlager, Gustavus, Cincinnati, Ohio. Numbering or paging machine.....	232,983	Oct. 5	225	61	18	775
Lanth, Bernard C. (See Stubblebine, William, assignor.)						
Lavance, James H., New York, N. Y. Quilting-gage for sewing-machines.....	234,485	Nov. 16	819	219	18	1140
Laverty, Charles E., Gladeville, W. Va. Drip-pan for oil-barrels.....	234,411	Nov. 16	732	198	18	1125
Laverty, William A., Philadelphia, Pa. Neckscarf.....	226,763	Apr. 20	727	203	17	889
Laverty, William A., assignor of one-half interest to C. C. Hancock, Philadelphia, Pa. Neckscarf.....	226,764	Apr. 20	728	203	17	889
Laverty, William A., and C. C. Hancock, Philadelphia, Pa. Neckscarf.....	232,516	Sept. 21	777	215	18	668
Lavery, John F., Chicago, Ill. Sewer and catch-basin.....	228,084	May 25	1170	333	17	1199
Lavery, Richard, Boston, Mass. Curb for presses.....	231,821	Aug. 31	1425	401	18	503
Lavlett, Augustus T. (See Irwin, Robert W., assignor.)						
Law, Francis S., East Orange, (Bloomfield P. O.) N. J. Hat-flanging machine.....	226,525	Apr. 13	447	125	17	832
Law, James B., Darlington Court-House, S. C. Bale-tie.....	233,522	Oct. 19	906	250	18	903
Law, John, Lebanon, Ohio. Rail-fastener for vehicle-seats.....	228,083	May 25	1170	333	17	1199
Law, John, Forest City, Iowa. Copy-holder.....	229,001	June 22	1047	285	17	1411
Lawler, James J., assignor to himself and J. M. Everhart, Scranton, Pa. Lighting device.....	224,192	Feb. 3	252	73	17	245
Lawrence, Augustus, <i>et al.</i> (See Fisher, William M., assignor.)						
Lawrence, Charles, <i>et al.</i> (See Fisher, William M., assignor.)						
Lawrence, Charles D., and J. B. Kerr; said Kerr assignor to T. H. Patterson, Pine River, Wis. Clothes-wringer.....	224,019	Feb. 3	55	17	17	212
Lawrence, Franklin. (See McElroy, Herbert, assignor.)						
Lawrence, Lorenzo B., W. P. Hammon, Oakland, Cal., and A. G. Strawbridge, Sharon, Pa. Air-compressor and water-lifter.....	226,918	Apr. 27	926	258	17	932
Lawrence, Louis P., Jersey City Heights, N. J. Pipe and hose coupling.....	232,279	Sept. 14	482	134	18	613
Lawrence, Nathan M., J. C. Wykoff, and J. R. Whitaker, Clarksville, Ohio. Hand sawing-machine.....	227,169	May 4	95	26	17	993

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Lawrence, Phineas, London, England. Game-board.....	235,951	Dec. 28	1116	308	18	1490
Lawrence, William E., New York, N. Y. Manufacture of door-mats.....	227,115	May 4	26	8	17	983
Lawrence, William S., Kalamazoo, Mich. Harrow.....	232,192	Sept. 14	377	105	18	594
Laws, Albert D., Bridgeport, Conn. Manufacture of corsets.....	227,273	May 4	210	61	17	1012
Lawson, B. Howard. (See Clark, Locklin N., assignor.)						
Lawson, Daniel T., Wellsville, Ohio. Preventing explosions of steam-boilers.....	227,024	Apr. 27	1051	292	17	952
Lawton, Harold. (See Howland and Lawton.)						
Lawton, Richard C., Waterbury, Conn. Lamp.....	224,449	Feb. 10	549	158	17	313
Lay, Anson, Oakland, Cal. Rein-holder.....	230,557	July 27	1265	357	18	229
Lay, William, Seneca City, S. C. Water-motor.....	223,930	Jan. 27	887	236	17	181
Lay, William Seneca City, S. C. Water-motor.....	227,023	Apr. 27	1050	{ 291 292 }	{ 17	952
Layton, Charles. (See Herbert and Layton.)						
Lazear, Hiram Y., Chicago, Ill., and J. L. Sharp, New York, N. Y.; said Lazear assignor, by mesne assignments, to said Sharp. Gas-heater. (Reissue).....	9,333	Aug. 3	302	86	18	297
Lea Mond, James H., New York, N. Y. Combined lounge and bath.....	233,153	Oct. 12	443	122	18	817
Leach, Samuel S., Owego, N. Y. Car-brake.....	236,048	Dec. 28	1228	339	18	1508
Leach, Smith S., St. Louis, Mo. Water-closet valve.....	231,592	Aug. 24	1146	320	18	452
Leach, Thomas, assignor to Reed & Barton, Taunton, Mass. Baking-dish.....	234,790	Nov. 23	1210	326	18	1209
Leak, Elias, Longton, and J. Edwards, Fenton, England. Apparatus for supporting pottery-ware in kilns and ovens.....	224,450	Feb. 10	550	158	17	313
Leake, Charles F., Hale Street, Staines, England. Rolling plastic composition upon fabrics, &c.....	231,916	Sept. 7	44	11	18	532
Leake, Lewis W., Oswego, Kans. Churn.....	225,620	Mar. 16	755	222	17	608
Lear, Derrel W., and M. F. Connett, Little Rock, Ark. Waiter's tray.....	226,526	Apr. 13	448	125	17	832
Leas, J. Silas. (See Cook and Leas.)						
Leas, J. Silas, Rock Island, and S. Hanson, assignors to Barnard & Leas Manufacturing Company, Moline, Ill. Apparatus for scouring grain.....	232,986	Oct. 5	228	62	18	776
Leavitt, Erasmus D., Jr., Cambridgeport, Mass. Pump.....	231,059	Aug. 10	532	150	18	340
Leavitt, Erasmus D., Jr., Cambridgeport, Mass. Reheater for compound engines.....	231,060	Aug. 10	535	{ 150 151 }	{ 18	340
Leavitt, Erasmus D., Jr., Cambridgeport, Mass. Reheater for compound engines.....	231,061	Aug. 10	537	151	18	341
Leavitt, Thomas, Everett, Mass. Postmarking and canceling machine.....	235,952	Dec. 28	1118	{ 308 309 }	{ 18	1490
Le Barron, Russell A. (See Dunn and Le Barron.)						
Le Beau, John J., Cincinnati, Ohio. Balanced slide-valve.....	234,679	Nov. 23	1083	291	18	1189
Leber, Lorenz, Pacific, Mo. Stock-car.....	232,732	Sept. 28	1022	281	18	715
Lebkicher, Edwin M., Philadelphia, Pa. Felt hat.....	231,062	Aug. 10	538	152	18	341
Leblanc, Hippolyte, and E. V. A. Loisean, Paris, France. Electric railway-signal.....	229,321	June 29	1402	384	17	1470
Lechner, Francis M., Waynesburg, assignor to Lechner Mining Machine Company, Co- } lumbus, Ohio. Mining-machine.....	232,280	Sept. 14	484	{ 134 135 }	{ 18	613
Lechner, Francis M., Waynesburg, assignor to Lechner Mining Machine Company, Colum- } bus, Ohio. Mining-machine.....	223,626	Jan. 13	507	137	17	100
Lechner, Francis M., Waynesburg, assignor of one-half interest to T. Longstreth, Colum- } bus, Ohio. Hose-coupling.....	227,170	May 4	96	27	17	993
Lechner, Francis M., Waynesburg, assignor, by mesne assignments, to Lechner Mining Ma- } chine Company, Columbus, Ohio. Mining-machine. (Reissue).....	9,507	Dec. 21	972	270	18	1460
Lechner Mining Machine Company. (See Lechner, Francis M., assignor.)						
Lechner Mining Machine Company. (See Lechner, Francis M., assignor.) (Reissue.)						
Leclanché, Georges L., Paris, France, assignor to H. L. Roosevelt, New York, N. Y. Gal- } vanic battery.....	234,413	Nov. 16	735	198	18	1126
Le Comte, Joseph, et al. (See Perkins, George H., assignor.) (Reissue.)						
Lecoq, Gustave, Paris, France. Distributing currents to electric lamps.....	231,725	Aug. 31	1309	369	18	485
Le Coultre, Benjamin, Geneva, Switzerland. Chronograph.....	230,787	Aug. 3	216	63	18	282
Lederle, Joseph, Edgewater, and L. Oberlein, New York, N. Y. Ice-houso.....	232,830	Oct. 5	44	12	18	745
Lederle, Joseph, Edgewater, and L. Oberlein, New York, N. Y. Beer-cooler.....	234,133	Nov. 9	379	104	18	1056
Lednum, James I., Denton, Md. Kneading-machine.....	235,260	Dec. 7	238	65	18	1321
Ledue, Albert, Paris, France. Ironing apparatus for use in finishing felt hats.....	231,724	Aug. 31	1307	368	18	484
Lee, Archibald K., Philadelphia, Pa. Compound for artificial stone.....	225,991	Mar. 30	1215		17	706
Lee, Archibald K., assignor of one-half to W. Horter, Philadelphia, Pa. Asphaltum paint.....	235,365	Dec. 14	378		18	1352
Lee, Charles B., Galveston, Tex. Condenser.....	228,909	June 15	925	252	17	1385
Lee, David C., Kirkwood, Mo. Pump.....	225,398	Mar. 9	497	144	17	552
Lee, Earl, Corona, N. Y. Portable house.....	231,593	Aug. 24	1147	321	18	452
Lee, Frederick J., Mallorytown, Ontario, Canada. Gate.....	230,951	Aug. 10	415	120	18	322
Lee, George P. and L. J. Greece, N. Y. Fruit-drier.....	234,412	Nov. 16	733	198	18	1126
Lee, Homer. (See Guy, Constant A., assignor.) (Reissue.)						
Lee, Horace M., Boston, Mass. Passenger-elevator.....	226,330	Apr. 6	203	60	17	783
Lee, Horace M., Boston, Mass. Car-brake.....	227,368	May 11	331	97	17	1043
Lee, James N., Natchitoches, La. Portable bath-chamber.....	232,731	Sept. 28	1021	281	18	715
Lee, John C., Ladonia, Tex. Rotary cotton-chopper.....	228,653	June 8	593	158	17	1328
Lee, Leverett J. (See Lee, George P. and L. J.)						
Lee, Thomas, Cincinnati, Ohio. Peanut-roaster.....	226,081	Mar. 30	1320	372	17	721
Leeds, Josiah M., Kokomo, Ind. Building houses, barns, fences, &c.....	225,065	Mar. 2	107	30	17	474
Leedy, John K., Maurertown, Va. Lift-pump.....	224,931	Feb. 24	1124	321	17	434
Leeser, Jacob, et al. (See Liebmann, Hermann F. W., assignor.)						
Lefever, Daniel M., Syracuse, N. Y. Breech-loading fire-arm.....	229,429	June 29	1526	421	17	1487
Lefferts, Ebenezer C., Huntington, N. Y. Vehicle-spring.....	229,261	June 29	1322	364	17	1460
Lefferts, Henry D. B., New Brunswick, N. J., assignor to E. Gullick. Cloth-stretching ma- } chine.....	231,881	Aug. 31	1501	421	18	514
Lefferts, Marshall C., assignor to Celluloid Manufacturing Company, New York, N. Y. } Manufacture of syringes from celluloid and other plastic material.....	235,953	Dec. 28	1120	309	18	1491
Lefferts, Marshall C., assignor to Celluloid Manufacturing Company, New York, N. Y. } Manufacture of spoons and forks from celluloid, &c.....	235,954	Dec. 28	1121		18	1491
Leffler, Paul W., Grinnell, Iowa. Wire-barbing machine.....	232,831	Oct. 5	45	12, 13	18	745
Lefort, Henry, Newark, N. J. Watch-crown.....	226,329	Apr. 6	202	60	17	783
Leger, Eusebe, Waterville, Me. Paper-cutter.....	225,990	Mar. 30	1214	344	17	705
Legge, Thomas. (See Jones, Legge, and Bartlett.)						
Legwen, W. A. (See Gorham, Jackson, assignor.)						
Lehman, George, Philadelphia, Pa. Wagon-jack.....	233,779	Oct. 26	1215	338	18	965
Lehman, Heinrich A., Chicago, Ill. Device for preventing horses from running.....	228,085	May 25	1172	333	17	1199
Lehman, Herman J., New York, N. Y. Pocket-book.....	234,414	Nov. 16	736	199	18	1126
Lehmann, Frederick A. (See Rhind, Frank, assignor.)						
Lehmann, Paul, Berlin, Germany, assignor to F. A. Schilling, San Francisco, Cal. Canister..	235,789	Dec. 21	891	249	18	1445
Lehmann, William, Milwaukee, Wis. Millstone paint-staff.....	223,853	Jan. 27	790	211	17	165
Lehmann, William, Milwaukee, Wis. Truing millstone paint-staffs.....	230,881	Aug. 10	343	99	18	310

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Lehmpnhl, Ernest, <i>et al.</i> (See Baxley, Levi L., assignor.)						
Leib, David, assignor of one-half interest to G. N. Dewey, Columbus, Ohio. Sewing-machine treadle.....	225,150	Mar. 2	194	54, 55	17	489
Leidersdorf, Bernhard, and H. M. Mendel, Milwaukee, Wis. Drier.....	223,597	Jan. 13	475	128	17	95
Leiding, Herman, <i>et al.</i> (See Chapman, Samuel J., assignor.)						
Leigh, Lewis. (See Leigh, Lewis E., assignor.)						
Leigh, Lewis E., assignor to himself and L. Leigh, New Haven, Conn. Device for stretching and smoothing thread.....	235,261	Dec. 7	239	65	18	1321
Leighton, James T. (See Sweeney, John, assignor.)						
Leighton, John, London, England. Hand-stamp.....	225,936	Mar. 30	1145	325	17	694
Leighton, John, London, England. Hand-stamp.....	227,983	May 25	1058	301	17	1181
Leighton, Roscoe G., Skowhegan, Me. Harness-pad.....	231,594	Aug. 24	1149	321	18	452
Leininger, Theobald, Washington township, Mercer county, Ohio. Water-motor.....	224,299	Feb. 10	379	107	17	286
Leininger, William H. (See Parrott, John J. H., assignor.)						
Leiper, Thomas I., assignor to R. Wetherill & Co., Chester, Pa. Steam-generator.....	227,437	May 11	407	118	17	1055
Leistner, Carl E. and H. H., Leipsic, Saxony, Germany, assignors to Keuffel & Esser, New York, N. Y. Tape-measure.....	233,358	Oct. 19	713	195	18	871
Leistner, Heinrich H. (See Leistner, Carl E. and H. H.)						
Leiter, John H. (See Lowe and Leiter.)						
Leland, Edwin J., Worcester, Mass. Electric burglar-alarm for safes.....	230,788	Aug. 3	217	63	18	282
Leland, John J. (See Tiffany, Albert R., assignor.)						
Leland, Somers S. (See Stuart, William M., assignor.)						
Leland, William P., Mendon, Mich. Hay-rack.....	224,451	Feb. 10	553	159	17	313
Lemke, Alphons, Aschaffenburg, Bavaria. Lock.....	234,592	Nov. 16	966	256	18	1164
Lemman, John, Wakefield, Mass. Chair-seat.....	226,082	Mar. 30	1320	372	17	721
Lemon, Charles E. (See Lemon, Hamlin T., assignor.)						
Lemon, Hamlin T., assignor to himself and C. E. Lemon, Indianapolis, Ind. Diagram for theaters, &c.....	228,204	June 1	48	15	17	1235
Lemon, John. (See Lotz and Lemon.)						
Lempriere, William G., <i>et al.</i> (See Herrenscheidt, Henri, assignor.)						
Lendner, Augustus R., Washington, D. C., assignor to J. Heitz, Sr., Patterson, Pa. Apparatus for purifying water and other liquids.....	225,014	Mar. 2	36	11	17	463
Lenglet, Louis, St. Louis, Mo. Hermetically-sealed jar.....	229,537	July 6	38	10	18	14
Lenglet, Louis, St. Louis, Mo. Machine for corrugating metal covers for sealing jars.....	231,917	Sept. 7	45	11	18	532
Lenglet, Louis, St. Louis, Mo. Lining for fish-cans.....	232,517	Sept. 21	778	215	18	668
Lenhardt, Philip F. (See Liedtke, John, assignor.)						
Lenhart, Lewis Y., Red Wing, Minn. Seed-planter.....	232,281	Sept. 14	487	135	18	613
Le Noir, William B., Lower Peach Tree, Ala. Sad-iron heater.....	223,596	Jan. 13	474	128	17	95
Le Noir, William B., Lower Peach Tree, Ala. Washing apparatus. (Reissue).....	9,134	Mar. 30	1400	394	17	735
Le Noir, William B., and R. P. Chunn, Lower Peach Tree, Ala.; said Chunn assignor to said Le Noir. Attachment to balances.....	226,083	Mar. 30	1321	372	17	722
Lenex, Edwin S., New York, N. Y. Bale-tie.....	228,767	June 15	758	208	17	1363
Lenox, Edwin S., assignor to Washburn & Moen Manufacturing Company, Worcester, Mass. Wire bale-band.....	230,789	Aug. 3	218	63	18	282
Lenox, Edwin S., assignor to Washburn & Moen Manufacturing Company, Worcester, Mass. Wire bale-band.....	230,790	Aug. 3	219	64	18	282
Lentz, Gustav, assignor to Actien-Gesellschaft fuer Locomotivbau Hohenzollern, Dusseldorf, Germany. Tank-locomotive.....	231,337	Aug. 17	860	242	18	399
Leonard, Abner, Jr., Plymouth, Mass. Shank-stiffener for boots and shoes.....	235,541	Dec. 14	599	170	18	1389
Leonard, Bernard, Mahanoy City, Pa. Coal and rock drill.....	224,300	Feb. 10	380	107	17	286
Leonard, Charles L., <i>et al.</i> (See Taft, George H., assignor.)						
Leonard, George B., Lawton Station, N. Y. Hose-carriage.....	232,136	Sept. 14	307	86	18	582
Leonard, Harvey R., San Francisco, assignor of one-third to R. W. Elliott, Oakland, Cal. Sinking tubes and running tunnels and drifts by pneumatic pressure.....	235,955	Dec. 28	1121	309	18	1491
Leonard, James M. (See Murrell, Samuel, assignor.)						
Leonard Silk Company. (See Martin and Taylor, assignors.)						
Leonard, Sumner F., <i>et al.</i> (See Taft, George H., assignor.)						
Leenhart, Jacob J., and L. Werle, Warren, Pa. Gig-saddle.....	226,079	Mar. 30	1318	371	17	721
Leopold, Charles T., assignor to Lloyd, Supplee & Walton, Philadelphia, Pa. Meat-cutter.....	230,708	Aug. 3	132	39	18	268
Le Roy, Charles J., Palestine, Tex. Rack and spool for holding rope-coils.....	232,733	Sept. 28	1024	282	18	716
Le Roy, Charles J., Palestine, Tex. Grinding planer-knives.....	234,299	Nov. 9	580	157	18	1092
Le Roy, Charles J., Palestine, Tex. Reel for measuring bagging, &c.....	235,264	Dec. 7	242	66	18	1321
Le Roy, Henry, assignor of one-half interest to H. E. Cahill, Akron, Ohio. Flue-cleaner.....	230,139	July 20	744	208	18	139
Le Roy, Tennis V., Utica, N. Y. Car-axle box. (Reissue).....	9,084	Feb. 17	919	262	17	386
Lescale, John M., Paincourtville, La. Apparatus for bleaching cane-juice. (Reissue).....	9,045	Jan. 13	519	140	17	103
Leschziner, Wilhelm, <i>et al.</i> (See Stein, Herrmann, assignor.)						
Leslie, Benjamin J., De Mossville, Ky. Reversible plow.....	235,156	Dec. 7	115	33	18	1300
Lessey, Samuel H. (See Arthur, Charles M., assignor.)						
Lesson, Philip, Newark, N. J., assignor to Dover Stamping Company, Boston, Mass. Manufacture of sheet-metal spoons.....	232,832	Oct. 5	47	14	18	746
Lester, Daniel M., Norwich, Conn. Envelope-machine.....	226,331	Apr. 6	204	60	17	783
Lester, James S., Atlanta, Ga. Shirt.....	226,080	Mar. 30	1319	372	17	721
Leszynsky, Lesser, San Francisco, Cal. Button.....	232,044	Sept. 7	202	55	18	558
Letchworth, George J., Buffalo, N. Y. Bridle-bit.....	231,063	Aug. 10	539	152	18	341
Letellier, George F., assignor of one-third to C. H. Perrow, Tye River Depot, Va. Mill-stone-dressing machine.....	236,049	Dec. 28	1229	339	18	1508
Letourneau, Joseph S., Tucker, Ill. Lifting-bar for wagons.....	227,274	May 4	211	62	17	1012
Lettenmayer, Charles E. (See Wardwell and Lettenmayer.)						
Lettenmayer, George, assignor to himself and E. Fleming, Little Georgetown, W. Va. Carpenter's work-bench.....	227,275	May 4	212	62	17	1012
Letterman, Charles, Syracuse, assignor to C. S. Trowbridge and G. P. Roseboom, Auburn, N. Y. Grooving sheet-metal pipes. (Reissue).....	9,343	Aug. 17	911	256	18	409
Leuchsenriog, Robert, New Bedford, Mass. Rotary engine.....	225,226	Mar. 9	290	83	17	519
Leuckel, John. (See Bowman, Oliver O., assignor.)						
Levake, Winfield S., assignor of one-half to E. Slight, Cleveland, Ohio. Boiler-flue cleaner.....	234,044	Nov. 2	270	73, 74	18	1031
Levalley, Christopher W., St. Paul, Minn. Grain-binder.....	226,865	Apr. 27	856	238	17	922
Levalley, Christopher W., St. Paul, Minn. Harvester.....	228,540	June 8	453	239	17	1307



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Levalley, Christopher W., St. Paul, Minn. Grain-binder.....	232,518	Sept. 21	779	216	18	663
Levanway, William A., Oakland, Cal. Thill-coupling.....	228,086	May 25	1172	333	17	1199
Levett, Alexander. (See Haas, Harry L., assignor.)						
Levey, Charles, Toronto, Ontario, Canada. Furnace.....	227,906	May 25	964	{ 276 277 }	17	1166
Levi, Albert A., <i>et al.</i> (See Krouse, Samuel R., assignor.)						
Levi, Emil S. (See Walker, William, assignor.)						
Levin, Samuel, assignor of one-fourth interest to N. Snyder, Pittsburg, Pa. Eyeglass.....	232,985	Oct. 5	227	62	18	775
Leviness, John, and P. Vanhorn, Brooklyn, assignors to J. S. Sanborn, New York, N. Y. Paper-cutting machine. (Reissue).....	9,054	Jan. 20	713	192	17	143
Levison, W. Goold, Brooklyn, N. Y. Electric lamp.....	227,025	Apr. 27	1052	292	17	952
Lery, Edmund L. (See Schanbel, Henry, assignor.) (Reissue.)						
Levy, Louis W., New York, N. Y. Watch-case spring.....	227,116	May 4	27	8	17	983
Lewin, George W., Somerset, (Fall River P. O.) Mass. Register-knob.....	232,984	Oct. 5	226	61	18	775
Lewin, John M., assignor of one-half interest to J. B. Naismith, Lockport, N. Y. Bottle stopper and fastening.....	230,791	Aug. 3	220	64	18	282
Lewis, Alexander C., Fayetteville, Ark. Rotary engine.....	233,260	Oct. 12	569	157	18	840
Lewis, Alfred N. (See Deutsch and Kanouse, assignors.)						
Lewis, Bennett S. (See Day and Lewis.)						
Lewis, Charles J. (See Smith, Benjamin F., assignor.)						
Lewis, Charles S., assignor to Waterbury Clock Company, Waterbury, Conn. Calendar-clock.	228,261	June 1	123	35, 36	17	1246
Lewis, Christopher, and B. Evans, assignors of one-third interest to H. D. Turney, Columbus, Ohio. Manufacture of shovels.....	230,558	July 27	1266	357	18	229
Lewis, Clark, Cassville, assignor to Lewis Counterpressure Locomotive Company, Waterville, N. Y. Steam-brake.....	228,821	June 15	829	{ 226 227 }	17	1372
Lewis, Clay E., <i>et al.</i> (See Raby, Richard, Jr., assignor.)						
Lewis Counterpressure Locomotive Company. (See Lewis, Clark, assignor.)						
Lewis, Daniel F. (See Fowler and Lewis.)						
Lewis, David M., Memphis, Tenn. Harness pipe-loop attachment for wax-thread sewing-machines.....	224,930	Feb. 24	1122	320	17	433
Lewis, Frank A., Porter township, Van Buren county, Mich., assignor of one-half interest to G. B. Lewis. Car-coupling.....	224,094	Feb. 3	147	41	17	227
Lewis, Frederic R., Troy, N. Y. Device for cutting fabrics.....	232,647	Sept. 28	927	255	18	700
Lewis, George B., and C. E. Parks, Watertown, Wis. Combined truck and supporting-frame.....	232,833	Oct. 5	48	14	18	746
Lewis, George T., Philadelphia, Pa., and E. O. Bartlett, Pemberton, N. J. Refining lead-fumes.....	223,931	Jan. 27	888	236	17	181
Lewis, George T., Philadelphia, Pa., and E. O. Bartlett, Pemberton, N. J. Manufacturing pigment bases.....	223,932	Jan. 27	889	236	17	181
Lewis, George T., Philadelphia, Pa. Refining waste lead-fumes.....	224,548	Feb. 17	667	190	17	343
Lewis, George T., Philadelphia, Pa. Making white pigments from lead sulphurets.....	224,549	Feb. 17	668	191	17	343
Lewis, George T., Philadelphia, Pa., and E. O. Bartlett, Pemberton, N. J. Refining lead-fumes. (Reissue).....	9,442	Nov. 2	345	95	18	1044
Lewis, Gilens B. (See Lewis, Frank A., assignor.)						
Lewis, G. T. (See Styron, John L., assignor.)						
Lewis, Henry M., <i>et al.</i> , trustees. (See Gilbert, John W., assignor.) (Reissue.)						
Lewis, Henry M., <i>et al.</i> , trustees. (See Grout, Charles P., assignor.) (Reissue.)						
Lewis, Henry M., <i>et al.</i> , trustees. (See Starr, Eli T., assignor.)						
Lewis, Herman J. S. (See Pratt and Lewis.)						
Lewis, H. M., <i>et al.</i> , trustees. (See Bonwill, William G. A., assignor.) (Reissue.)						
Lewis, H. M., <i>et al.</i> , trustees. (See Reid, Hiram A., assignor.) (Reissue.)						
Lewis, J. A. (See Smith, Henry E., assignor.)						
Lewis, James D., Oshkosh, Wis. Hoof-protector.....	224,704	Feb. 17	843	240	17	373
Lewis, James H., Detroit, Mich. Potato-digger.....	227,984	May 25	1059	{ 301 302 }	17	1181
Lewis, John, Birmingham, England. Banker's check.....	228,087	May 25	1173	334	17	1200
Lewis, John H. (See Jurisch, Lewis, Proell, and Scharowsky.)						
Lewis, John L., Pittsburg, Pa. Power-press.....	235,865	Dec. 28	1007	278	18	1472
Lewis, Leroy S., Rockville, Conn. Tool for repairing axle-arms.....	232,407	Sept. 21	649	179	18	646
Lewis, Mortimer G., Lowville, assignor to Hall Manufacturing Company, New York, N. Y. Pipe-gripe.....	231,181	Aug. 17	689	193	18	372
Lewis, Nathan C., Boston, Mass. Machine for making nails.....	225,066	Mar. 2	108	30	17	475
Lewis, Pearl C., Catskill, N. Y. Combined syringe and force-pump.....	230,639	Aug. 3	54	15	18	255
Lewis, Romeo W., Sacramento, Cal. Signal-lantern.....	225,397	Mar. 9	496	144	17	552
Lewis, Samuel T. (See Haupt, Jacob B., assignor.)						
Lewis, Tristram S., Saco, Mo. Guide-rein terret.....	232,193	Sept. 14	378	105	18	594
Lewis, Wilfred. (See Roberts and Lewis.)						
Lewis, William I., Westbrook, Conn. Medical compound.....	226,084	Mar. 30	1322	-----	17	722
Lewis, William J., Pittsburg, Pa. Machine for coiling wire and rods.....	229,718	July 6	238	66	18	43
Lex, Jacob. (See Simon and Lex.)						
Leyburn, Edward J., Fredericksburg, Va. Truck.....	234,486	Nov. 16	820	219	18	1140
Leycuras, Jean, Paris, France. Heel for boots and shoes.....	235,262	Dec. 7	240	66	18	1321
Leyden, John E. (See Duncan and Leyden.)						
Libbey, Samuel P., and A. L. Parcell, Boston, Mass. Ink-fountain.....	230,028	July 13	601	167	18	107
Libbey, William L., Boston, Mass. Mold and process for the manufacture of glassware.....	234,300	Nov. 9	582	158	18	1092
Libby, Caleb A., assignor of one-half to M. V. Pratt, Evansville, Ind. Spring-bed.....	234,303	Nov. 9	584	158	18	1092
Libby, Frank V., Manchester, N. H. Cuff-snapper.....	229,324	June 29	1410	386	17	1471
Libby & Spier. (See Gilbert, Charles A., assignor.)						
Licklider, Samuel E., Everett, Mo. Stock-feeder.....	231,823	Aug. 31	1423	402	18	503
Liddell, Robert, <i>et al.</i> (See Bates, Samuel A., assignor.)						
Liddle, Robert Z., and R. Morris, assignors to J. S. Perry, Albany, N. Y. Stove-grate.....	233,939	Nov. 2	128	35	18	1003
Lidren, Christopher, assignor to himself and R. Jackson, La Fayette, Ind. Reaping and binding machine.....	230,792	Aug. 3	222	64, 65	18	283
Lidstone, James, Farmington, Mo. Steam-cooker.....	233,261	Oct. 12	570	158	18	840
Lieb, Charles, New York, N. Y. Machine for stitching books with metallic staples.....	226,086	Mar. 30	1324	373	17	722
Lieb, John W., Newark, N. J. Traveling-bag.....	233,154	Oct. 12	445	122	18	818
Lieb, John W., Newark, N. J. Hub for locks.....	234,302	Nov. 9	583	158	18	1092
Lieb, Thomas, Woodhaven, N. Y. Apparatus for drawing effervescent liquids.....	228,910	June 15	927	252	17	1386
Liebmann, Hermann F. W., Chicago, Ill., assignor of two-thirds interest to A. V. Coale and J. Leaser. Marking-pot.....	227,117	May 4	28	9	17	953
Liedman, Gustav. (See Beeger, Karl, assignor.)						
Liedtkie, John, assignor to himself and P. F. Lenhardt, Brooklyn, N. Y. Machine for finishing leather.....	229,895	July 13	451	125	18	84

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Light, Frederick, Jr. (See Kriebel, Hosea K., assignor.) (Reissue.)						
Lightcap, William H., Hazel Green, Wis., assignor of one-third to M. M. Cady, Dubuque, Iowa. Wrench.	234,994	Nov. 30	1465	394	18	1259
Lightfoot, John J., et al. (See King, George W., assignor.)						
Lighthall, Almerin H., San Francisco, Cal. Pump.	232,520	Sept. 21	781	{ 216 217 }	18	668
Lighthall, Hiram. (See Miller and Lighthall.)						
Lighthall, William A., Brooklyn, assignor to himself, W. H. Jewell, E. G. Furber, and C. M. Hastings, New York, N. Y. Refrigerating apparatus.	224,785	Feb. 24	971	276	17	408
Lignoid Fancy Article Manufacturing Company. (See Villiers, Eugene, assignor.)						
Ligon, Edwin T., Demopolis, Ala. Pump.	224,193	Feb. 3	254	74	17	245
Ligowsky, George, and A. Woerber, assignors of one-third interest to D. Folz, Cincinnati, Ohio. Target-ball.	225,621	Mar. 16	755	222	17	608
Ligowsky, George, Cincinnati, Ohio. Flying target.	231,919	Sept. 7	47	11	18	532
Lilley, Robert M. (See Conroy, Edward, assignor.)						
Lillie, S. Morris, Philadelphia, Pa. Fire-extinguisher. (Reissue.)	9,023	Jan. 6	252	67	17	46
Lillie, S. Morris, Philadelphia, Pa. Time-lock unlocking attachment.	223,933	Jan. 27	890	237	17	182
Lilienthal, Gustav. (See Lilienthal, Otto and G.)						
Lilienthal, Otto and G., Berlin, Prussia, assignors to F. A. Richter, Rudolstadt, Germany. Composition toy building-block.	233,780	Oct. 26	1217	338	18	965
Lilly, Charles H., New York, N. Y. Lightning-rod insulator.	230,290	July 20	921	262	18	166
Lilly, Charles H., New York, N. Y. Connection for lightning-rods.	230,293	July 20	926	263	18	167
Lilly, Julius W., Binghamton, assignor to L. Lilly, Castle Creek, N. Y. Door-mat.	232,408	Sept. 21	650	179	18	646
Lilly, Lewis. (See Lilly, Julius W., assignor.)						
Lima, Santiago, assignor of one-half to G. W. Hojer, New York, N. Y. Liquid starch-polish compound.	234,680	Nov. 23	1084	-----	18	1190
Limpert, Michael, Pittsburg, Pa. Car-heater.	224,194	Feb. 3	255	74	17	245
Linck, Emil J., Baltimore, Md. Pattern-chart for drafting garments.	224,832	Feb. 24	1017	{ 288 289 290 }	17	416
Lincoln, Elisha W., assignor to C. J. Geier, Richmond, Ind. Fluid soap.	225,400	Mar. 9	499	-----	17	553
Lincoln, Horatio B., et al. (See Stamon, John B., assignor.)						
Lincoln, Isaac M., Providence, R. I. Cattle-car.	233,630	Oct. 26	1052	293	18	937
Lincoln, Isaac W., St. Joseph, Mo. Combined dough-kneader and flour-sifter.	226,085	Mar. 30	1323	373	17	722
Lincoln, Isaac W., St. Joseph, Mo. Combined biscuit cutter and sticker.	230,294	July 20	927	263	18	167
Lincoln, William E. (See Sanford, Addison V., assignor.)						
Lincoln, William E., Warren, Mass. Milk-cooler.	229,262	June 29	1323	365	17	1460
Lincoln, William O., Bridgeport, Conn., assignor to S. W. Lambeth, Philadelphia, Pa. Fly-fan.	228,466	June 8	361	98	17	1294
Lincoln, William S. (See Rayer and Lincoln.) (Reissue.)						
Lindberg, Theodore. (See Quintavalle and Lindberg.)						
Lindblom, Charles A., New York, N. Y. Car-truck.	231,822	Aug. 31	1426	401	18	503
Linde, Charles P. G., Munich, Germany. Refrigerating and ice-making apparatus.	228,364	June 1	229	65	17	1264
Lindemann, Albert J., Milwaukee, Wis. Machine for making stove-pipe elbows.	232,045	Sept. 7	202	55	18	558
Linderman, Albert T., Whitehall, Mich. Circular seed-drill and cultivator.	226,178	Apr. 6	37	9	17	752
Lindgren, Alfred. (See Norman, Andrew A., assignor.)						
Lindgren, August, Moline, Ill. Sulky-plow.	224,195	Feb. 3	256	74	17	245
Lindner, Moritz, Chemnitz, Saxony, Germany. Pattern-chain for looms.	224,550	Feb. 17	669	191	17	343
Lindsay, James A., Kendall, assignor of two-thirds interest to J. J. Vandergrift, Oil City, and W. A. Spring, Kendall, Pa. Liquid-tester.	232,519	Sept. 21	780	216	18	668
Lindsay, Josiah. (See Campbell and Lindsay.)						
Lindsay, William G., Winnebago, assignor of one-half to J. W. Edwards, Winneconne, Wis. Ironing-table.	234,791	Nov. 23	1211	327	18	1210
Lindsay, William G., Winneconne, Wis. Stove-pipe damper.	235,263	Dec. 7	241	66	18	1321
Lindsey, George W., Baltimore, Md. Animal-trap.	225,708	Mar. 23	868	254	17	636
Lindsey, George W., Baltimore, Md. Hat-holder.	226,987	Mar. 30	1325	373	17	732
Lindsley, Isaac, Pawtucket, assignor to himself and S. Scholfield, Providence, R. I. Compressed-tobacco smoking-tube.	235,885	Dec. 28	1029	284	18	1476
Lindsley, Isaac, Pawtucket, assignor to himself and S. Scholfield, Providence, R. I. Manufacture of coherent compressed tobacco.	235,886	Dec. 28	1030	{ 284 285 }	18	1476
Linehan, William, Chicago, Ill. Device for feeding fluid into boilers to prevent incrustation.	225,622	Mar. 16	756	223	17	608
Lines, Henry, New Haven, Conn. Landau-carriage top. (Reissue.)	9,117	Mar. 16	821	240	17	619
Linford, Charles, Pittsburg, Pa. Underground telegraph.	224,551	Feb. 17	669	191	17	344
Linford, Charles, Leicester, England. Gas-engine.	232,987	Oct. 5	229	63	18	776
Lingard, James W., New York, N. Y. Pantaloons.	225,399	Mar. 9	498	144	17	552
Link, Frederic W., assignor to himself and N. Holloway, Belmont, Ohio. Rotary engine.	226,527	Apr. 13	449	126	17	833
Linn, Sylvester J., Mondamin, Iowa. Churn-dasher.	230,295	July 20	928	264	18	167
Linscott, Charles F., Boston, Mass. Glass-plate cleaner.	229,430	June 29	1529	421	17	1487
Linsenmayer, George, Philadelphia, Pa. Electro-deposition of aluminium and gold alloy.	231,064	Aug. 10	540	-----	18	341
Linthicum, James S., Baltimore, assignor to W. Linthicum, Brooklyn, Md. Dumping-wagon.	228,655	June 8	595	159	17	1329
Linthicum, William. (See Linthicum, James S., assignor.)						
Lintner, Daniel H., Millersville, Pa. Mincing-machine.	223,809	Jan. 27	738	199	17	158
Lintner, Daniel H., Millersville, Pa. Meat-cutter.	223,810	Jan. 27	739	199	17	158
Linton, A., et al. (See Dolloff, Wellington P., assignor.)						
Linton, P., et al. (See Dolloff, Wellington P., assignor.)						
Liaville, Worley, Carrville, Tenn. Fence.	230,559	July 27	1266	357	18	229
Lipe, Charles E., Syracuse, N. Y. Broom-sewing machine.	229,322	June 29	1404	{ 385 386 }	17	1470
Lipe, Walter. (See Bendix, George E., assignor.)						
Lippincott, Leander K., Washington, D. C. Sash-fastener.	224,833	Feb. 24	1019	290	17	416
Lippitt, Francis J., Washington, D. C. Eyelet-punch for paper-fasteners.	230,296	July 20	929	264	18	167
Lippy, David, and J. B. Roush, Mansfield, Ohio. Traction-engine.	230,297	July 20	930	264	18	167
Lipsecombe, John E. (See Scannell and Lipscombe.)						
Lipsey, Andrew B., West Hoboken, N. J. Disintegrating apparatus.	230,140	July 20	745	208	18	139
Lishness, Lysander J. (See McIntosh and Lishness.)						
Lisle, William, Jr., et al. (See Paul, George D., assignor.)						
Lissberger, Abraham K., Boston, Mass., and S. D. Samuels, Monson, Me.; said Samuels assignor to said Lissberger. Railway-car.	223,291	Jan. 6	102	25	17	19
Lister, Alfred and E., Newark, N. J. Apparatus for drying glue.	228,541	June 8	456	124	17	1308
Lister, Alfred and E., Newark, N. J. Apparatus for evaporating liquors for the manufacture of glue.	228,542	June 8	458	124	17	1308
Lister, Alfred and E., Newark, N. J. Filter.	233,940	Nov. 2	129	35	18	1008
Lister, Edwin. (See Lister, Alfred and E.)						
Lister, Isaac J., Richwood, Ohio. Burglar-alarm.	226,236	Apr. 6	105	28	17	764

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Liston, Joseph M. (See Skidmore, Liston, and Skidmore.)						
Litchfield, William R., Gold Hill, Nev. Fruit-picker	229,150	June 22	1203	329	17	1435
Little, John D., assignor of one-half interest to G. O. Moen, Petaluma, Cal. Dividing-com-						
passes	229,619	July 6	125	34	18	27
Littell, James B., Brooklyn, N. Y. Child's chair and carriage guard	231,918	Sept. 7	46	11	18	532
Little, Eugene J., et al. (See Munger, Jerome S., assignor.)						
Little, Eugene J., Edenburg, Pa. Casing for oil-wells	234,995	Nov. 30	1466	394	18	1259
Little, George, Oldham, and T. C. Eastwood, Bradford, England. Combing machinery	226,332	Apr. 6	206	61	17	733
Little, George, West Bergen, N. J. Relay or sounder magnet	234,415	Nov. 16	737	199	18	1126
Little, Lee C., Pittsburg, Pa. Metal-boring tool	225,291	Mar. 9	376	110	17	532
Littlefield, Frederick H. (See Bissell and Littlefield.)						
Littlejohn, Charles F., New Haven, Conn. Cuff-button and stud	232,194	Sept. 14	379	105	18	594
Littlejohn, Charles F., assignor of one-half to H. Ford, New Haven, Conn. Carriage-boot-						
flap hook	234,301	Nov. 9	582	158	18	1092
Littler, John A., et al. (See Copeland, Samuel R., assignor.)						
Littmann, Franz, Halle-on-the-Saale, Prussia, Germany. Ice-machine	234,792	Nov. 23	1211	327	18	1210
Litzenberg, Benjamin F., Russell, Iowa. Sulky-plow	224,095	Feb. 3	147	41, 42	17	223
Livermore, Charles F. (See Lockwood and Bartlett, assignors.)						
Livermore Charles W., Providence, R. I. Stylographic fountain-pen	225,401	Mar. 9	499	144	17	553
Livermore, John W., Kingsburg, Cal. Horse hay-fork	233,524	Oct. 19	909	250	18	903
Livermore, Joseph P., Cambridge, Mass., assignor to American Bell Telephone Company.						
Microphone	232,734	Sept. 28	1025	282	18	716
Livermore, Thomas S. (See Barry, James R., assignor.)						
Livermore, Thomas S., Leicester, Mass. Latch	225,707	Mar. 23	867	254	17	636
Livesey, James, and J. Kidd, London, England. Apparatus for enriching gas	227,549	May 11	528	153	17	1076
Livesey, James, J. and J. Kidd, London, England. Apparatus for enriching gas	227,547	May 11	526	153	17	1076
Livesey, James, J. and J. Kidd, London, England. Apparatus for enriching gas	227,548	May 11	527	153	17	1076
Livesey, Olin L. (See Nichols, Manwaring, and Livesey.)						
Livingston, Francis M., Newark, N. J., assignor to D. B. Howell & Co., New York, N. Y.						
Pencil-sharpener	229,323	June 29	1410	386	17	1471
Livingston, Herbert, Quincy, Ill. Draft-bar for vehicles	226,407	Apr. 13	300	86	17	810
Livingston, Joseph W., Syracuse, N. Y. Breech-loading fire-arm	227,907	May 25	965	277	17	1167
Livingston, Thomas W., Ainsworth, Iowa. Magneto-electric machine	229,719	July 6	239	66	18	43
Livingstone, William, New York, N. Y. Box	233,265	Oct. 12	573	159	18	840
Lloyd, James. (See Thompson and Lloyd.)						
Lloyd, John S., Flemington, N. J. Smoke and cinder conveyer for locomotives	227,550	May 11	529	153	17	1076
Lloyd, John S., Flemington, N. J. Stump-puller	228,088	May 25	1174	334	17	1200
Lloyd, John S., Flemington, N. J. Ventilating railway-cars, &c.	229,720	July 6	241	66	18	44
Lloyd, Reuben H. (See Williams, George E., assignor.)						
Lloyd, Supplee & Walton. (See Hinton, James, assignor.)						
Lloyd, Supplee & Walton. (See Leopold, Charles T., assignor.)						
Lobdell, Alonzo, Racine, Wis. Cording attachment for sewing-machines	223,364	Jan. 6	178	47	17	32
Lobdell, Flint, et al. (See Smith and Joslin, assignors.)						
Lobdell, Richard, et al. (See Smith and Joslin, assignors.)						
Loch, Joseph, New York, N. Y. Padlock	228,656	June 8	596	159	17	1329
Locke, Alphens C. (See Locke, Nathaniel C., assignor.) (Reissue.)						
Locke, Alphens C., et al. (See Noyes, George E., assignor.) (Reissue.)						
Locke, Charles S. (See Holub and Locke.)						
Locke, Charles S., assignor of two-thirds interest to W. Snyder and O. P. Briggs, Chicago, }						
Ill. Machine for packing meat	223,522	Jan. 13	386	{ 102 103 }	{ 17 17 }	{ 81 81 }
Locke, Charles S., assignor to himself and F. Holub, Chicago, Ill. Machine for packing						
meat in cans	227,276	May 4	213	62	17	1013
Locke, David. (See Bergqvist, Axel F., assignor.)						
Locke, Joseph R., Amesbury, Mass. Carriage-spring	224,597	Feb. 17	733	208	17	354
Locke, Millard F. (See Fine and Locke.)						
Locke, Nathaniel C., et al. (See Noyes, George E., assignor.) (Reissue.)						
Locke, Nathaniel C., Salem, Mass. Pressure-regulator	225,015	Mar. 2	37	11	17	463
Locke, Nathaniel C., Salem, Mass., assignor of one-half interest to A. C. Locke. Fluid-						
pressure regulator. (Reissue.)	9,466	Nov. 16	1026	274	18	1174
Locke, Richard B., Brooklyn, N. Y. Track-clearer	233,359	Oct. 19	714	195	18	871
Locke, Sylvanus D., et al. (See Adams, Henry A., assignor.) (Reissue.)						
Locke, Sylvanus D., Hoosick Falls, N. Y. Machine for picking hops	223,854	Jan. 27	790	{ 211 212 213 }	{ 17 17 17 }	{ 165 165 165 }
Locke, Sylvanus D., Hoosick Falls, N. Y. Grain-binder. (Reissue.)	9,102	Mar. 2	250	70, 71	17	500
Locke, Sylvanus D., Hoosick Falls, N. Y. Harvester	233,781	Oct. 26	1217	{ 338 339 339 }	{ 18 18 18 }	{ 965 965 965 }
Locke, Sylvanus D., Hoosick Falls, N. Y. Grain-binder	235,443	Dec. 14	475	{ 134 135 135 }	{ 18 18 18 }	{ 1368 1368 1368 }
Lockhart, George, Tarrytown, N. Y. Fire-escape	228,822	June 15	831	227	17	1372
Lockhart, Jesse, Niantic, Ill. Rail-joint	229,538	July 6	39	10	18	14
Lockhart, Jesse, Macon County, Ill. Motor for street-cars	231,183	Aug. 17	691	194	18	372
Lockhart, Jesse. (See Grush and Lockhart.)						
Lockie, Andrew J., assignor of one-half interest to M. J. Hurd, Rochester, Minn. Pad for						
horses' hoofs	228,262	June 1	129	36	17	1247
Lockman, Henry S., Castleton, N. Y. Pump	228,089	May 25	1176	{ 334 335 }	{ 17 17 }	{ 1200 1200 }
Lockwood, Charles S. (See Hyatt, Lockwood, and Stevens.)						
Lockwood, Edward K. (See Rose, John H., assignor.)						
Lockwood, Henry S., assignor to himself and W. A. Wheeler, South Norwalk, Conn. Toy						
pistol	229,721	July 6	242	67	18	44
Lockwood, James K., Alpena, Mich. Circular saw. (Reissue.)	9,197	May 11	599	172	17	1088
Lockwood, John W. (See Smith, Francis F., assignor.)						
Lockwood, Robert M., and S. H. Bartlett, assignors of one-half interest to C. F. Livermore,						
New York, N. Y. Transmitter for telephones	228,824	June 15	834	228	17	1373
Lockwood, Robert M., and S. H. Bartlett, assignors of one-half interest to C. F. Livermore,						
New York, N. Y. Telephone-receiver	228,825	June 15	836	228	17	1373
Lockwood, Robert M., and S. H. Bartlett, assignors of one-half interest to C. F. Livermore,						
New York, N. Y. Transmitter for telephones	228,826	June 15	837	228	17	1373
Lockwood, Robert M., and S. H. Bartlett, assignors of one-half interest to C. F. Livermore,						
New York, N. Y. Transmitter and repeater for telephones	229,151	June 22	1204	330	17	1435
Lockwood, Robert M., and S. H. Bartlett, assignors of one-half interest to C. F. Livermore,						
New York, N. Y. Transmitter for telephones	229,152	June 22	1204	330	17	1435

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Lockwood, Robert M., and S. H. Bartlett, assignors of one-half interest to C. F. Livermore, New York, N. Y. Transmitter for telephones.	229,153	June 22	1207	330	17	1435
Lockwood, Robert M., and S. H. Bartlett, assignors to Molecular Telephone Company, New York, N. Y. Telephone-receiver.	231,065	Aug. 10	541	152	18	341
Lockwood Telephone Company. (See Lockwood, William C., assignor.)						
Lockwood, William, Sheffield, England, assignor of one-half interest to J. Turnbull, Jr., Glasgow, Scotland. Spring for pistons.	233,262	Oct. 12	571	158	18	840
Lockwood, William C., assignor to Lockwood Telephone Company, Chicago, Ill. Telephone.	233,360	Oct. 19	716	195 196	18	871
Lockwood, William C., assignor to Lockwood Telephone Company, Chicago, Ill. Call attachment for telephones.	233,526	Oct. 19	911	251	18	904
Lockwood, William C., assignor to Lockwood Telephone Company, Chicago, Ill. Telephone.	233,527	Oct. 19	912	251	18	904
Lockwood, William V., assignor to National Bell Telephone Company, Boston, Mass. Galvanic battery.	227,801	May 18	825	-----	17	1132
Loeb, Jacob, Philadelphia, Pa. Show-box for laces.	226,088	Mar. 30	1326	373	17	722
Lochner, August, St. Louis, Mo. Hanger for shafting.	225,757	Mar. 23	929	269	17	646
Lochner, Auguste, St. Louis, Mo. Shaft hanger, bracket, and post.	227,634	May 18	631	180	17	1103
Lochner, Auguste, assignor of one-half interest to B. A. Hill, St. Louis, Mo. Car-coupling.	232,195	Sept. 14	379	105	18	594
Loeser, Moses, Buffalo, N. Y. Baling-press.	235,542	Dec. 14	600	171	18	1389
Loewy, Benno. (See Kircher, Julius, assignor.)						
Loewy, Benno. (See Kircher, Julius, assignor.) (Reissue.)						
Loftin, John, Thomasville, Mo. Device for upsetting tires.	234,918	Nov. 30	1374	370	18	1243
Loftus, Thomas. (See Alderson and Loftus.)						
Logan, Horace A. (See Turner and Logan.)						
Logan, John. (See Logan, Robert and J.)						
Logan, John B., and A. Greenleaf, Baltimore, Md. Fire-extinguishing apparatus.	226,919	Apr. 27	929	258	17	932
Logan, Robert and J. McKeesport, Pa. Fire-place heater.	227,171	May 4	97	27	17	994
Loiseau, Eugene V. A. (See Leblanc and Loiseau.)						
Loiselle, Louis, Valleyfield, Quebec, Canada. Refrigerator.	225,992	Mar. 30	1216	344	17	706
Lomasney, John M., Cincinnati, Ohio. Box smoothing-iron.	224,552	Feb. 17	671	192	17	344
Lomax, George H., Somerville, Mass. Molding glass on metallic thimbles.	230,709	Aug. 3	133	39	18	268
Loneran, John E., Philadelphia, Pa. Lubricator. (Reissue.)	9,164	Apr. 20	793	221	17	900
Loneran, Stephen, Lewiston, Me. Saw-gage.	232,989	Oct. 5	232	64	18	776
Long & Brother Chair Company. (See Miller, John C., assignor.)						
Long, Charles B., Worcester, Mass. Machine for crimping the uppers of boots and shoes.	226,866	Apr. 27	866	241	17	923
Long, Cornelius P., Payne's Store, Tex. Uterine supporter.	224,452	Feb. 10	553	159	17	314
Long, Gabriel. (See Van Allen, Charles A., assignor.)						
Long, George S., assignor of two-thirds interest to G. W. Williams, Hartford, Conn. Machine-belt.	231,726	Aug. 31	1312	369	18	485
Long, John H., et al. (See Long, William H., assignor.)						
Long, Nathan H., Muncie, Ind. Swinging gate.	228,823	June 15	833	227 228	17	1373
Long, Nathan S., Marysville, Ohio. Butter-press.	232,356	Sept. 21	586	162	18	636
Long, Oliver, Philadelphia, Pa. Filter.	231,066	Aug. 10	542	153	18	341
Long, Samuel L., assignor to G. B. Sapp, Keithsburg, Ill. Cornstalk-cutter.	230,426	July 27	1118	314	18	204
Long, William H., assignor to himself, J. H. Long, and G. Clark, Covington, Ohio. Washing-machine.	229,433	June 29	1532	422	17	1488
Longaker, Thomas F., West Philadelphia, Pa. Adjustable gage for liquid-measures.	229,431	June 29	1530	421	17	1488
Longard, Samuel H., Halifax, Nova Scotia, Canada. Remedy for diphtheria.	230,141	July 20	746	-----	18	139
Longee, Hayes. (See Bostwick, Seymour A., assignor.)						
Longstreet, Aaron, et al. (See Coyle, Charles J., assignor.)						
Longstreth, Edward, Philadelphia, Pa. Crown-bar for fire-boxes.	228,090	May 25	1178	335	17	1200
Longstreth, Edward, Philadelphia, Pa. Cylinder blow-off for locomotives.	232,046	Sept. 7	205	56	18	553
Longstreth, Edward, Philadelphia, Pa. Exhaust apparatus for locomotives.	232,990	Oct. 5	232	64	18	776
Longstreth, Edward, Philadelphia, Pa. Exhaust apparatus for vacuum-brake ejectors.	233,263	Oct. 12	572	158	18	840
Longstreth, Edward, Philadelphia, Pa. Exhaust attachment for safety-valves of locomotives.	233,782	Oct. 26	1219	339	18	966
Longstreth, Edward, Philadelphia, Pa., assignor to himself, G. Burnham, C. T. Parry, E. H. Williams, W. P. Henszey, and J. H. Converse. Exhaust apparatus for locomotives. (Reissue.)	9,389	Sept. 28	1112	304	18	731
Longstreth, Thaddeus. (See Lechner, Francis M., assignor.)						
Longton, Joseph. (See Collins and Longton.)						
Loomis, Benjamin T., Baltimore, Md. Reversible filter.	227,800	May 18	825	233	17	1132
Loomis, Benjamin T., Baltimore, Md. Filter.	232,735	Sept. 28	1026	282	18	716
Loomis, Francis A., Onondaga, N. Y. Fisherman's reel.	235,157	Dec. 7	116	33	18	1300
Loomis, Thomas R. (See Billings, George W., assignor.)						
Looney, George W., Sr., Farmington Station, Ind. Attachment for reapers.	232,648	Sept. 28	928	255	18	700
Loper, Richard F., Jr., Stonington, Conn. Raising and lowering ships' rudders.	234,594	Nov. 16	968	257	18	1165
Lord, Edward N., Wakefield, assignor of one-half interest to C. Williams, Jr., Somerville, Mass. Telephone-switch.	226,528	Apr. 13	451	127	17	833
Lord, Frederick N., et al. (See Plumer, William, assignor.)						
Lord, Samuel, New York, N. Y. Baker's oven.	229,539	July 6	39	10	18	14
Lord, Timothy W., et al. (See Harrison, William H., assignor.)						
Lord, Tyler C., Joliet, Ill. Check-rowing attachment for corn-planters.	232,137	Sept. 14	308	87	18	583
Lord, William S., Brownsville, Tenn. Vise.	232,282	Sept. 14	488	136	18	613
Lorentz, Lorenzo D. (See Sumpter, John U., assignor.)						
Lorenz, Carl A. (See Cullman and Lorenz.)						
Lorenz, John C. and J., St. Petersburg, Pa. Stop-valve.	233,525	Oct. 19	910	250	18	963
Lorenz, Joseph. (See Lorenz, John C. and J.)						
Lorenzen, Hans P., Friedrichstadt, Schleswig-Holstein, Germany. Method and apparatus for obtaining ammonia.	232,991	Oct. 5	233	64	18	777
Lorillard & Co., P. (See Hearn, Edwin R., assignor.)						
Lorillard, Pierre, Jr., New York, N. Y. Tobacco-box.	224,096	Feb. 3	148	42	17	228
Loring, Prentiss. (See McDonald and McAllister, assignors.)						
Loth, Moritz, et al. (See Klemm, Frank A., assignor.)						
Loth, Moritz, et al. (See Tisdell, Abner G., assignor.)						
Lothrop, Chauncey M., Norwood, assignor of one-third interest to J. Freese, Walpole, Mass. Sand-paper holder.	227,438	May 11	408	119	17	1055
Lothrop, Chauncey M., Norwood, assignor of one-half to E. and J. C. Hatch, Boston, Mass. Blotting-pad.	234,878	Nov. 30	1326	357	18	1235
Lothrop, Frank B. (See Lothrop, Henry O. and F. B.)						
Lothrop, Henry O., Boston, and F. B. Lothrop, South Acton, Mass. Fastening for gloves.	230,793	Aug. 3	227	65, 66	18	283
Lott, Thomas A., Conewango township, Warren county, Pa. Dinner-pail.	227,369	May 11	332	98	17	1043



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Lottier, Lawrence. (See Balmer and Lottier.)						
Lottier, Lawrence, and O. E. Perrigo, Richmond, Va.; said Perrigo assignor to said Lottier. Process and machine for drying tobacco.	229,434	June 29	1533	422	17	1488
Lotz, William F., and J. Lemon, London, England, assignors to G. W. McGill, New York, N. Y. Lamp-burner.	232,992	Oct. 5	235	65	18	777
Lotz, William H., Chicago, Ill. Window-shutter and operating device.	224,021	Feb. 3	56	17	17	213
Lotz, William H., Chicago, Ill., assignor, by mesne assignments, to F. Fischbeck. Extension sofa-bed. (Reissue.)	9,215	May 25	1259	356	17	1213
Lotz, William H., Chicago, Ill. Hoisting-machine.	234,714	Nov. 23	1117	{ 301 302 }	{ 18 18 }	{ 1195 1352 }
Lotz, William H., Chicago, Ill. Hoisting-machine.	235,366	Dec. 14	379	104	18	1352
Loucks, Cornelius. (See Fischer, Philipp, assignor.)						
Loud, Herbert. (See Ferrall, Thomas R., assignor.)						
Loud, Herbert, Everett, Mass. Anti-frictional bushing.	224,453	Feb. 10	554	159	17	314
Loughridge, William, Baltimore, Md. Piston for air-brake cylinders.	234,134	Nov. 9	380	104	18	1057
Louisville Leaf Tobacco Company. (See Robinson, Goldsborough, assignor.)						
Louth, Adam W., Philadelphia, Pa. Deodorizing noxious gases.	234,793	Nov. 23	1213	327	18	1210
Love, Albert A., New Brighton, N. Y. Plate and dish.	226,665	Apr. 20	625	174	17	872
Love, Robert, assignor to himself and S. P. Stambach, Philadelphia, Pa. Support for sinks.	229,154	June 22	1208	331	17	1435
Love, Samuel, New York, N. Y. Knit fabric.	229,896	July 13	452	125	18	84
Love, Shelby J., Thorndyke, W. Va. Land-roller and stalk-cutter.	232,283	Sept. 14	490	136	18	614
Love, Shelby J., Thorndyke, W. Va. Press.	233,941	Nov. 2	130	35	18	1009
Lovejoy, Nathan E., Columbus, Ohio. Vise.	229,432	June 29	1531	422	17	1488
Lovelace, Alfred N., assignor to himself and S. S. Howell, Knoxville, Tenn. Insect-trap.	224,196	Feb. 3	257	74	17	246
Lovell, John P. (See Hempstead, Beall, assignor.)						
Lovell, John P. (See Wheeler, Henry F., assignor.)						
Lovell, Melvin N., assignor to F. F. Adams & Co., (limited,) Erie, Pa. Step-ladder.	224,020	Feb. 3	55	17	17	213
Lovell, Melvin N., Erie, Pa. Steam-generator.	225,480	Mar. 16	596	173	17	579
Lovell, Melvin N., Erie, Pa. Paper-file.	230,298	July 20	931	{ 264 265 }	{ 18 18 }	{ 167 167 }
Lovellette, Augustus T. (See Irwin, Robert W., assignor.)						
Loveren, Charles L., Malden, and J. H. Ritz, Jamaica Plain, Mass. Watch-key.	224,342	Feb. 10	429	123	17	293
Loveridge, James W., Jersey City, N. J. Book-binding.	231,067	Aug. 10	543	153	18	342
Lovrien, Charles H., assignor to M. A. Lovrien, Erie, Pa. Pipe-tongs.	234,304	Nov. 9	585	159	18	1092
Lovrien, Mary A. (See Lovrien, Charles H., assignor.)						
Lew, Abbot A., Brooklyn, N. Y. Type-case.	233,264	Oct. 12	572	158	18	840
Lew, Addison, Ohlman, Ill. Harrow.	227,551	May 11	530	154	17	1076
Lew, Charles H., Chicago, Ill., assignor, by mesne assignments, to L. A. Watson, Ashtabula, Ohio. Machine for preparing feathers for dusters.	225,152	Mar. 2	196	55	17	490
Lew, John, Sheffield, Mass. Horseshoe-calk sharpener.	226,408	Apr. 13	300	87	17	810
Lew, Oscar, Chelsea, Mass. Temporary binder.	229,046	June 22	1091	297	17	1418
Lowden, Dickson R., Philadelphia, Pa. Lamp.	226,089	Mar. 30	1327	374	17	722
Lowden, Edward M., New York, N. Y. Lamp.	230,299	July 20	932	265	18	168
Lowden, Edward M., New York, N. Y. Lamp.	232,521	Sept. 21	783	217	18	669
Lowden, George, Brooklyn, N. Y. Velocipede.	233,682	Oct. 26	1110	309	18	947
Lowden, James J., assignor of one-half interest to A. A. Schenck, Hoesick Falls, N. Y. Stove-lid.	225,151	Mar. 2	195	55	17	490
Lowden, Lafayette, Adrian, Mich. Wagon-seat.	226,179	Apr. 6	38	10	17	752
Lowe, Jacob S., and J. H. Leiter, Shelby, Ohio. Combination-ruler.	232,988	Oct. 5	231	64	18	786
Lowell, Albion H., Manchester, N. H. Sewer-grating.	228,091	May 25	1178	335	17	1200
Lowell, James P., Purcellville, Va. Mixing and feeding apparatus for grinding-mills.	229,722	July 6	243	67	18	44
Lowell Machine Company. (See Gibson, Everett G., assignor.)						
Lowenberg, Harris, New York, N. Y. Pantaloon.	232,196	Sept. 14	380	106	18	594
Lowerre, Thomas R., Motthaven, New York, N. Y. Letter-box.	227,552	May 11	531	154	17	1077
Lowerre, Thomas R., Motthaven, New York, N. Y. Letter-box.	228,911	June 15	928	252	17	1326
Lowerre, Thomas R., Motthaven, New York, N. Y. Feed-bag.	234,593	Nov. 16	966	257	18	1164
Lewery, John, et al. (See Adams, Joseph, assignor.)						
Lozier, Abraham W., New York, N. Y. Stylographic fountain-pen.	233,106	Oct. 12	387	106	18	808
Lozier, Abraham W., New York, N. Y. Stylographic pen.	233,155	Oct. 12	446	123	18	818
Lozier, Charles E., Sioux City, Iowa. Egg-carrier.	223,235	Jan. 6	33	8	17	8
Lubricating Material and Oil Company. (See Broadbent, Charles F., assignor.)						
Lucas, Christian E., Atlanta, Ga. Folding rack for sleeping-car seats.	229,897	July 13	453	125	18	84
Lucasse, Ary. (See Newell and Lucasse.)						
Lucasse, Ary. (See Newell and Lucasse.) (Reissue.)						
Luce, Benjamin F., Janesville, Minn. Gate.	225,841	Mar. 23	1019	293	17	660
Luce, Theodore, Detroit, Mich. Ore-grinding apparatus.	235,158	Dec. 7	117	33	18	1301
Lucas, Asher N., New York, N. Y. Collar.	227,173	May 4	98	27	17	994
Lück, John J., assignor of one-half interest to H. B. Bateman, Ripon, Wis. Device for regulating the head of water in mill-dams.	232,284	Sept. 14	491	136	18	614
Lück, John J., and H. B. Bateman, Ripon, Wis. Device for regulating the head of water in mill-dams, canals, &c.	234,996	Nov. 30	1467	395	18	1259
Luckenbach, Frederic A., New York, N. Y. Pneumatic grain-conveyer.	228,206	June 1	49	16	17	1235
Luders, Thomas L., Philadelphia, Pa., assignor of one-half interest to C. J. A. Dick, London, England. Car-axle box.	228,657	June 8	596	159	17	1329
Ludington, Thomas H., Bovina Valley, N. Y. Milk-strainer.	230,301	July 20	934	265	18	168
Ludlow, Alfred. (See Hookham, George, assignor.)						
Ludlow, Samuel, Brooklyn, N. Y. Twine-finishing machine.	234,305	Nov. 9	585	{ 159 160 }	{ 18 18 }	{ 1092 1092 }
Ludlow Valve Manufacturing Company. (See Ward, John, assignor.)						
Ludwig, Frank A. (See Fild, Peter, assignor.)						
Ludwig, John M., assignor of one-half interest to J. J. and L. T. Stoneburner, Edenburg, Va. Middlings-purifier.	224,705	Feb. 17	844	240	17	373
Ludwig, Romulus P., Edenburg, Va. Manure-drill.	227,174	May 4	99	28, 29	17	994
Luers, Henry, New York, N. Y. Game apparatus or sectional checker-board.	231,963	Sept. 7	113	28	18	542
Lufkin, Edwin, assignor of one-half to E. H. Nealley, Monroe, Me. Lantern-hanger.	234,045	Nov. 2	271	74	18	1031
Lugo, Orazio. (See Rossetti, Antonio L., assignor.)						
Lugo, Orazio, Flushing, N. Y. Dynamo-electric brake.	224,933	Feb. 24	1127	{ 321 322 }	{ 17 17 }	{ 434 434 }
Lugo, Orazio, New York, N. Y. Electric telegraph.	235,159	Dec. 7	118	34	18	1301
Lugo, Orazio, New York, N. Y. Telegraphing by induced currents.	235,160	Dec. 7	120	34	18	1301
Lugo, Orazio, assignor to S. L. M. Barlow, New York, N. Y. Electric telegraph.	235,161	Dec. 7	121	34	18	1300
Lugo, Orazio, New York, N. Y. Dynamo-electric telegraphy.	235,687	Dec. 21	773	219	18	1425
Lugo, Orazio, New York, N. Y. Dynamo-electric telegraphy.	235,688	Dec. 21	776	219	18	1426
Lugo, Orazio, New York, N. Y. Dynamo-electric telegraphy.	235,689	Dec. 21	779	219	18	1426

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Lugo, Orazio, New York, N. Y. Dynamo-electric and inductive telegraphy.....	235,690	Dec. 21	781	220	18	1426
Lugriu, Henry A., assignor to himself and P. Nordmann, New York, N. Y. Stop-watch.....	229,723	July 6	244	67	18	41
Lugriu, Henry A., assignor to himself and P. Nordmann, New York, N. Y. Stop-watch.....	232,737	Sept. 28	1029	283	18	717
Lukens, Jawood, Conshohocken, Pa. Heating and puddling furnace.....	227,277	May 4	213	63	17	1013
Lum, William H. (See Hadfield and Clark, assignors.) (Reissue.)						
Lumbert, Daniel, Centerville, Mass. Corn-popper.....	228,205	June 1	48	15	17	1235
Lummas, Franklin H., Brooklyn, N. Y. Cotton-condenser.....	232,736	Sept. 28	1028	282	18	716
Lummas, William W., Lynn, Mass. Hydraulic surface-measuring machine.....	233,361	Oct. 19	717	196	18	871
Lundberg, Charles G., Helsingborg, Sweden. Construction of ships.....	234,794	Nov. 23	1214	328	18	1210
Lundqvist, Alexius T., Brooklyn, N. Y. Ellipsograph.....	235,543	Dec. 14	601	171	18	1390
Lupton, Addison, Troy Grove, assignor to himself, M. A. Holbrook, M. Buhler, and O. Chad-dock, Lamoille, Ill. Cultivator.....	232,993	Oct. 5	236	65	18	777
Lupton, Lewis R., Comanche, Tex. Sand-band.....	233,266	Oct. 12	574	159	18	840
Luse, Daniel F., Centre Hall, Pa. Hydrant.....	235,790	Dec. 21	692	249	18	1445
Luther, Charles A., Pawtucket, R. I. Oiling device.....	231,182	Aug. 17	690	194	18	372
Luther, James H., Karns City, Pa. Tool for extracting tubular casings from oil-wells.....	229,325	June 29	1411	386	17	1471
Luther, Jonathan. (See Vermilyea and Norris, assignors.)						
Lutner, W. L., et al. (See Gardner, Robert J., assignor.)						
Lüttswager, Gustav E. H., Buckeye township, (Cottage Hill P. O.) Hardin county, Iowa. Churn.....	232,138	Sept. 14	310	87	18	583
Lutz, John M., Philadelphia, Pa. Skylight.....	235,367	Dec. 14	381	105	18	1352
Lutz, Peter S., Leistville, Ohio. Corn-planter.....	225,528	Mar. 16	651	190	17	588
Lutz, W. Clay, Bedford, Pa. Iron railway-tie.....	233,528	Oct. 19	913	251	18	904
Lyall, James, New York, N. Y., assignor, by mesne assignments, to R. C. Elliott, trustee. Loom. (Reissue.).....	9,049	Jan. 20	703	190	17	141
Lyker, John, Root, N. Y. Track-clearer.....	223,365	Jan. 6	179	47	17	33
Lyman, Arthur W., Geneva, Ohio. Compound tool.....	224,022	Feb. 3	59	18	17	213
Lyman, Dorus, Racine, Wis. Running-gear for wagons.....	230,300	July 20	933	265	18	168
Lyman, Fordyce A., Cleveland, Ohio. Vapor-burner.....	225,067	Mar. 2	109	31	17	475
Lyman, Fordyce A., Cleveland, Ohio. Vapor-burner.....	227,695	May 18	705	200	17	1114
Lyman, Henry J., Spartansburg, Pa. Butter washer, cooler, and worker.....	223,934	Jan. 27	895	237	17	182
Lynch, Emanuel T., J. R. Parker, and G. C. Steel, Corning, Iowa. Animal-trap.....	224,932	Feb. 24	1125	321	17	434
Lynch, George F., Milwaukee, Wis. Covering for steam-boilers.....	229,620	July 6	126	34	18	27
Lynch, Michael L., Cameron, Tex. Engineer's level-rod.....	234,997	Nov. 30	1470	395	18	1260
Lyne, Lewis F., Jersey City, N. J. Piston-connection for indicators and pressure-gages.....	235,791	Dec. 21	894	249	18	1445
Lyon, Edward, Brooklyn, assignor to M. A. Sutherland, New York, N. Y. Compound soap.....	226,920	Apr. 27	931	.....	17	933
Lyon, Edward W., Allegheny, Pa. Ore-concentrating pan.....	229,263	June 29	1324	365	17	1460
Lyon, George, assignor of one-half interest to S. P. Wolverton, Sunbury, Pa. Nut-lock.....	231,338	Aug. 17	860	242	18	400
Lyon, Henry L., Hampton, Ark. Cotton-scraper.....	227,802	May 18	826	233	17	1133
Lyon, John S. (See Meredith and Lyon.)						
Lyon, Leopold, Hazleton, Pa. Plaiting attachment for sewing-machines.....	229,155	June 22	1208	331	17	1436
Lyon, Nelson. (See Barsaloux, Joseph, assignor.) (Reissue.)						
Lyon, Nelson. (See Young, Leonard, assignor.)						
Lyon, William P., and S. Vail, Port Chester, N. Y. End-board fastening.....	230,794	Aug. 3	228	66	18	223
Lyons, Hugh, assignor of one-half interest to O. Marble, Chicago, Ill. Damper-regulator for steam-boilers.....	232,994	Oct. 5	236	65	18	777
Lyons, Hugh, Chicago, Ill., assignor of one-half to H. Cortrite, Lansing, Mich. Automatic damper-regulator.....	235,544	Dec. 14	602	171	18	1390
Lyons, Joel, assignor to J. C. Kingston, Buffalo, N. Y. Boot-stretcher.....	229,156	June 22	1209	331	17	1436
Macallister, Alma C., Brookline, Mass. Oil-stove.....	233,865	Nov. 2	47	13	18	995
Macallister, Alma C., Brookline, Mass. Sad-iron heater.....	235,092	Dec. 7	34	11	18	1287
Mac Alpin, Daniel, Philadelphia, Pa. Portable oven.....	231,068	Aug. 10	543	153	18	342
Macay, Juan F. N., Charapoto, Ecuador. Manufacture of ferric oxide and cupric chloride.....	234,595	Nov. 16	968	.....	18	1165
Macbeth, George A. (See Harcum, Andrew, assignor.)						
Macdonald, John M. L. (See Macdonald, Ranald and J. M. L.)						
Macdonald, Ranald and J. M. L., Brooklyn, N. Y. Car-axle box.....	235,162	Dec. 7	123	34, 35	18	1302
Macdonough, James, assignor to himself and American Bank Note Company, New York, N. Y. Postage-stamp.....	228,365	June 1	230	65	17	1264
Macintosh, Robert, Boston, Mass. Mechanism for the manufacture of waxed ends.....	226,619	Apr. 20	571	159	17	864
Mack, Albert G. (See Young, Charles, assignor.) (Reissue.)						
Mack, Elisha S., Painted Post, N. Y. Pump.....	223,366	Jan. 6	180	47	17	33
Mack, Frank, et al. (See Dieterle, Henry E., assignor.)						
Mack, James C., Brooklyn, N. Y. Refrigerating apparatus.....	227,553	May 11	532	154	17	1077
Mackay, James, Liverpool, county of Lancaster, England. Roller-skate.....	235,887	Dec. 28	1033	285	18	1476
Mackay, William R., assignor to Meriden Silver Plate Company, Meriden, Conn. Butter-holder for butter-dishes.....	226,666	Apr. 20	626	174	17	872
Mackenzie, John F. (See Brearoy, Frederick W., assignor.)						
Mackenzie, John F., Edinburgh, Scotland. Aerial navigation.....	235,792	Dec. 21	895	250	18	1446
Mackey, Alexander, New York, N. Y. Connection for meters.....	230,882	Aug. 10	344	99	18	310
Mackinney, Herbert G., Providence, R. I. Gem-setting.....	233,158	Oct. 12	450	123	18	818
Mackinnon, Duncan, Lucknow, Ontario, Canada. Pen.....	226,618	Apr. 20	570	159	17	864
Mackinnon, Duncan, Lucknow, Ontario, Canada. Pen. (Reissue.).....	9,376	Sept. 14	535	148	18	622
Mackintosh, Edward D. (See Fuller and Mackintosh.)						
Mackintosh, James H., Paterson, N. J. Spindle and holster for spinning-frames.....	229,157	June 22	1211	332	17	1436
Mackintosh, William, New York, N. Y. Distributing the wires of underground telegraphs.....	228,658	June 8	598	159	17	1329
Maclay, Isaac W., Metuchen, N. J. Iron pile.....	226,237	Apr. 6	106	28	17	764
Maclay, Isaac W., Metuchen, N. J. Iron pile.....	228,467	June 8	362	99	17	1294
Macomber, William C., Baltic, Conn., assignor of one-half interest to A. S. Hopkins, Pas-coag, R. I. Spindle for spinning-machines.....	232,522	Sept. 21	784	217	18	669
Macowitzky, Charles P., Chicago, Ill. Valve-gear for steam-engines.....	227,119	May 4	31	9	17	983
Macurdy, James C., Boonville, Mo. Ventilated bath-box for chemical and photographic purposes.....	231,879	Nov. 30	1326	357	18	1256
Macy, Josiah H., Harrison, assignor to C. G. Singer, New York, N. Y. Branding-machine.....	230,427	July 27	1119	{ 311 315 }	18	204
Macy, William H., Jr., assignor to J. H. Pool & Macy, New York, N. Y. Apparatus for expelling substances from packages.....	223,743	Jan. 20	644	173	17	132
Madden, Ambrose, Asbury Park, N. J. Halter to prevent horses from cribbing.....	227,026	Apr. 27	1055	293	17	953
Maddin, Samuel D., St. Paul, Minn. Harvester.....	234,375	Nov. 9	662	{ 180 181 }	18	1105
Maddock, Thomas, Trenton, N. J. Flushing device for water-closet bowls.....	229,326	June 29	1412	387	17	1471
Madeheim, Herm. (See Hawkes and Madeheim.)						
Maertens, Emile, Philadelphia, Pa. Dopp-heddle for weaving gauze.....	233,267	Oct. 12	575	159	18	841
Maetzel, George H., Columbus, Ohio. Jail or prison.....	229,540	July 6	41	11	18	14

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Magee, Christopher L., <i>et al.</i> (See Hamilton and Griffith, assignors.)						
Mageo Furnace Company. (See Prowse, George R., assignor.)						
Magee, Robert B., Oil City, Pa. Temper-screw for oil-wells. (Reissue).....	9,288	July 13	683	191	18	120
Magee, William A., <i>et al.</i> (See Hamilton and Griffith, assignors.)						
Magerhans, Adolph W., New York, N. Y. Bracelet. (Reissue).....	9,192	May 4	297	86	17	1027
Magerhans, Adolph W., New York, N. Y. Jewelry.....	231,433	Aug. 24	968	273	18	424
Magic Rifle Company. (See Barney, Samuel E., assignor.) (Reissue.)						
Magill, Robert, assignor to J. E. Umbstaetter, E. J. Waring, B. F. Asper, and W. J. Patterson, Pittsburg, Pa. Rock-drilling machine.....	227,908	May 25	966	277	17	1167
Magner, Dennis, Brooklyn, N. Y. Apparatus for breaking and subduing horses.....	229,541	July 6	43	12	18	14
Magner, Dennis, Brooklyn, N. Y. Horse-hoof expander.....	229,832	July 13	383	106	18	73
Magner, Dennis, Brooklyn, N. Y. Bridle.....	233,631	Oct. 26	1053	293	18	937
Magner, Thomas J., and C. L. Thomas, Hornellsville, N. Y. Vehicle-spring.....	231,070	Aug. 10	545	154	18	342
Magnetic Lasting Machine Association. (See Mower, Samuel E., assignor.)						
Magnuson, Alfred, San Francisco, Cal. Machine for heading and pointing bolts.....	226,090	Mar. 30	1328	374	17	722
Magoon, Charles H., St. Johnsbury, Vt. Feed-water heater for locomotives.....	230,190	July 20	801	226	18	148
Magoun, John W., Bath, Me. Side-bar carriage.....	231,339	Aug. 17	861	242	18	400
Maguire, Isaac, assignor of one-half interest to J. Maguire, Albany, N. Y. Hinge for stove-doors.....	231,184	Aug. 17	691	194	18	372
Maguire, John. (See Maguire, Isaac, assignor.)						
Maguire, John, and W. A. Alexander, Mobile, Ala. Dredging-machine.....	224,197	Feb. 3	257	75	17	246
Maguire, Terrence G., Boston, Mass. Reclining-chair.....	228,263	June 1	130	36	17	1247
Mahan, Dennis H., U. S. Navy. Boat-detaching apparatus.....	231,675	Aug. 31	1249	351	18	475
Mahan, Frank M., and S. R. Owen, St. Joseph, Mo.; said Mahan assignor of one-third to D. Bailey and S. W. Slayden, and said Owen assignor to said Slayden. Machine for extracting gold from auriferous deposits.....	233,632	Oct. 26	1054	294	18	937
Mahan, Hiram W., Clinton, N. Y. Hop-press.....	224,097	Feb. 3	149	42	17	228
Maheux, Eusebe. (See Trudelle and Maheux.)						
Mahler, Franz. (See Frelleöhr and Mahler.)						
Mahling, Carl, New York, N. Y. Piano-forte-damper attachment.....	228,912	June 15	929	252 } 253 }	17	1386
Mahon, John F., London, Ontario, Canada. Harvester.....	230,302	July 20	934	266	18	168
Mahoney, Daniel M. (See Cox, Arthur W., assignor.)						
Mahoney, Eugene H. (See Paine, George C., assignor.)						
Mahoney, Jeremiah J., Boston, Mass. Corset-clasp.....	234,306	Nov. 9	587	160	18	1093
Mahony, James. (See Watson, Daniel, assignor.)						
Mahony, James, Newport, R. I. Steam-boiler furnace.....	225,402	Mar. 9	501	145	17	553
Mahony, James, Newport, R. I. Apparatus for promoting combustion in furnaces.....	231,232	Aug. 17	751	210	18	381
Maignen, Prosper A., London, England, and J. Retif, Fils, Lyons, France. Filtering apparatus.....	234,307	Nov. 9	588	160	18	1093
Mailier, John, San Francisco, Cal. Fire-box of boilers.....	227,278	May 4	215	63	17	1013
Maillefert, Benjamin, Astoria, assignor of one-half interest to H. Ehlers, New York, N. Y. Process of and apparatus for refrigerating and making ice.....	231,824	Aug. 31	1429	402	18	503
Maisel, Conrad, and L. M. Fisher, Buffalo, N. Y. Preparation of boned hams and shoulders.....	234,308	Nov. 9	590	161	18	1093
Maish, Levi. (See Davis, Owen R., assignor.)						
Maitland, Thomas, Williamsport, Pa. Grate-bar.....	234,047	Nov. 2	273	75	18	1031
Maker, Nathan P., assignor to himself and J. Moore, Providence, R. I. Separable button.....	231,965	Sept. 7	115	29	18	542
Males, Samuel, Cincinnati, Ohio. Cider-mill. (Reissue).....	9,508	Dec. 21	974	270	18	1460
Mallalien, Mary A., Aurora, Ill. Repairing boots and shoes.....	230,560	July 27	1267	358	18	230
Mallery, Harvey N., Flint, Mich. Horseshoe-hammer.....	224,023	Feb. 3	59	18	17	213
Mallett, Edward J., Jr., New York, N. Y. Disinfecting apparatus for water-closets, &c. (Reissue).....	9,068	Feb. 10	607	176	17	323
Mallett, Edward J., Jr., New York, N. Y. Disinfecting apparatus for water-closets, &c.....	224,553	Feb. 17	672	192	17	344
Mallett, Edward J., Jr., New York, N. Y. Disinfecting device for urinals, &c.....	225,842	Mar. 23	1020	293	17	661
Mallett, Edward J., Jr., New York, N. Y. Urinal-mat.....	229,436	June 29	1535	422	17	1488
Mallett, Edward J., Jr., New York, N. Y. Manufacture of chloride of zinc.....	236,051	Dec. 28	1231		18	1509
Mallett, Emmor M., Ionia, Mich. Barrel-swing.....	232,523	Sept. 21	785	218	18	669
Mallett, Sidney E., Akron, assignor of one-half interest to E. Miller, Canton, Ohio. Gate-roll.....	233,529	Oct. 19	914	251	18	904
Mallette, James. (See Johnston, Mallette, and Wood.)						
Mallory, D. D. (See Brooks, William D., assignor.)						
Mallory, Marshall H., New York, N. Y. Theater-stage.....	228,468	June 8	362	99	17	1294
Mallory, William H., Bridgeport, Conn., assignor of one-half interest to T. F. Rowland, New York, N. Y. Torpedo-boat.....	223,855	Jan. 27	794	213	17	166
Malm, Alexander, assignor to E. R. and T. W. Sheridan, Brooklyn, N. Y. Machine for cutting paper.....	223,744	Jan. 20	645	173	17	132
Malm, Alexander, Brooklyn, N. Y. Paper-cutting machine.....	227,803	May 18	824	234	17	1133
Malone, Edward J., assignor of one-half to P. Michels, Aurora, Ill. Crate-cover for wagon-bodies.....	236,050	Dec. 28	1230	339	18	1508
Maloney, James A., Georgetown, and J. Compton, Washington, D. C. Nailless box.....	231,434	Aug. 24	969	273	18	424
Maloney, T. J. (See Rosenzi, Enrico, assignor.)						
Maloubier, Fernand. (See Barbier and Maloubier.)						
Maloy, John O., East Providence, R. I. Thill-coupling.....	229,047	June 22	1092	297	17	1418
Maltby, Douglas F. (See Reilly, Richard B., assignor.)						
Maltby, William J. (See French and Maltby.)						
Mamlök, David, and A. T. Drewes, New York, N. Y. Corset.....	232,524	Sept. 21	786	218	18	669
Man, Albon. (See Sawyer and Man.)						
Man, Albon, Brooklyn, N. Y. Electric lamp.....	227,118	May 4	28	9	17	983
Man, Albon, Brooklyn, N. Y. Joining pieces of glass, porcelain, &c.....	227,370	May 11	333	98	17	1043
Mandel, Joseph, La Fayette, Ind. Pantaloon and overalls.....	235,888	Dec. 28	1034	285	18	1476
Mandel, Philip H., assignor to H. K. Flagler, Boston, Mass. Producing plate-printing surfaces.....	229,435	June 29	1534		17	1488
Mander, George, Birmingham, England. Bake-pan.....	229,158	June 22	1213	332	17	1436
Mangas, Jacob, Lincoln, Ill. Sulky-plow.....	234,046	Nov. 2	272	74	18	1031
Manhattan Brass Company. (See White, James H., assignor.)						
Manhattan Burner Company. (See Trent, Joseph, assignor.) (Reissue.)						
Manhattan Iron and Steel Pier and Bridge Company. (See Kirkup, Lancelot, assignor.)						
Manlove, George W., Jr., assignor of one-half interest to F. E. Berry, Rushville, Ill. Wagon-seat.....	226,765	Apr. 20	729	203	17	889
Manly, Marcus M. and R. P., Philadelphia, Pa. Insulating and protecting telegraphic conductors.....	227,371	May 11	335	98, 99	17	1043
Manly, Marcus M. and R. P., Philadelphia, Pa. Insulated telegraph-conductor.....	231,825	Aug. 31	1430	402	18	503
Manly, Robert P. (See Manly, Marcus M. and R. P.)						
Mann, Edgar E., Lawrence, Mass. Signal-buoy.....	226,238	Apr. 6	106	29	17	764

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Mann, Frederick, Koroit Creek, Braybrook, assignor of two-thirds interest to R. S. Scott, Melbourne, Victoria, and T. T. Jones, London, England. Manufacturing nitro-glycerine..	226,867	Apr. 27	868	-----	17	923
Mann, James W., Brockville, Ontario, Canada. Seeding-machine.....	228,913	June 15	930	253	17	1386
Mann, William I., and R. R. Singer, Pittsburg, Pa. Laying brick linings.....	229,724	July 6	245	67, 68	18	44
Manneck, Emil A. J., New York, N. Y. Device for fastening tapes to boxes.....	232,285	Sept. 14	492	137	18	614
Manness, Charles F. (See Stanton and Manness.)						
Manning, Bowman & Co. (See Manning and Seips, assignors.)						
Manning, Edward B., New Haven, and M. Seips, assignors to Manning, Bowman & Co., West Meriden, Conn. Tea and coffee pot.....	234,135	Nov. 9	381	104	18	1057
Manning, Gilbert S., Chicago, Ill. Stretcher for fence-wires.....	233,367	Jan. 6	181	47	17	33
Manning, John, <i>et al.</i> (See Langhlin, David F., assignor.)						
Manny, Abraham J., St. Louis, Mo. Rotary colter.....	230,883	Aug. 10	345	99	18	311
Manor, Edward P., <i>et al.</i> (See Johnson, Elmore, assignor.)						
Manoury, Henry A. J., Paris, France. Process and apparatus for preparing saccharate of lime and obtaining sugar.....	232,995	Oct. 5	237	65	18	777
Manrose, David P., Riverton, Iowa. Pump.....	227,439	May 11	409	119	17	1055
Mansfield, Albert K., Steubenville, Ohio. Switch-stand.....	227,372	May 11	340	99	17	1044
Mansfield, Albert K., Steubenville, Ohio. Window-opener.....	229,621	July 6	127	35	18	27
Mansfield, Albert K., Steubenville, Ohio. Heating and ventilating cars.....	235,265	Dec. 7	243	67	18	1322
Mansfield, Eben B., Malden, assignor of one-half interest to O. A. Whitmore, Boston, Mass. Music-stand.....	229,622	July 6	127	35	18	28
Mansfield, Stanley. (See Dudley and Mansfield.)						
Manton, Joseph P. (See Remington and Manton.) (Reissue.)						
Mantz, William H. (See Sapp and Mantz.)						
Manuel, John, Philadelphia, Pa. Indicator for gas-burners.....	235,545	Dec. 14	603	172	18	1390
Manwaring, Kinyon W., De Witt, Iowa. Colter.....	227,373	May 11	341	99	17	1044
Manwaring, Kinyon W., De Witt, Iowa. Colter attachment.....	231,074	Aug. 10	547	155	18	343
Manwaring, Wolcott B. (See Nichols, Manwaring, and Livesey.)						
Manwaring, Wolcott B. (See Williams, George, assignor.)						
Manwaring, Wolcott B., New London, Conn. Siphon-pump.....	232,525	Sept. 21	787	218	18	669
Marable, Thomas E., assignor of one-half interest to J. G. Griswold, Petersburg, Va. Motor for sewing-machines.....	226,529	Apr. 13	452	127	17	833
Marbeau, Anguste, Dijon, France. Apparatus for malting.....	224,554	Feb. 17	673	192	17	344
Marble, Eugene H., Bay City, Mich. Gib.....	232,047	Sept. 7	205	56	18	558
Marble, Oliver. (See Lyons, Hugh, assignor.)						
Marble, William S. (See Perkins, Bozorth, and Marble.)						
Marcelin, Paul, Black Rock, Conn. Apparatus for the manufacture of nitric acid.....	227,027	Apr. 27	1056	293	17	953
March, Alfred, assignor to Norfolk and New Brunswick Hosiery Company, New Brunswick, N. J. Knitting-machine.....	223,292	Jan. 6	104	{ 25 26 27 }	{ 17 17 17 }	20
Marchand, Henry E., assignor of one-half interest to W. J. Beckfeld, Allegheny, Pa. Automatic liquid-measure.....	232,527	Sept. 21	789	219	18	669
Mareum, Francis E., El Dorado, Kans. Liniment.....	234,048	Nov. 2	273	-----	18	1031
Mareus, Solms, assignor to H. N. Hart, Chicago, Ill. Pocket.....	234,487	Nov. 16	822	220	18	1140
Marens, William N., <i>et al.</i> (See Shinn, John, assignor.)						
Marey, Frederick I. (See Covell, William W., assignor.)						
Marey, Jules G., San Francisco, Cal. Mechanical motor.....	226,409	Apr. 13	301	87	17	810
Marden, John W., Norwich, Conn. Car-stake.....	234,681	Nov. 23	1085	291	18	1190
Marden, Stephen J. (See Chamberlain, Edmund D., assignor.)						
Marden, William J., Constantine, Mich. Barrel-swing.....	229,002	June 22	1047	285	17	1411
Maré, Charles, Nantes, France. Preserving fish.....	225,938	Mar. 30	1146	326	17	694
Mareglia, Frank G., Lussinpiccola, Austria. Rudder for vessels.....	221,595	Aug. 24	1150	321	18	452
Mares, Joseph S., St. Louis, Mo. Carriage-spring.....	234,137	Nov. 9	382	105	18	1057
Maresca, Luigi. (See Rossi, Gennaro, assignor.)						
Marggraf, Gustavus D., Caledonia, Ohio. Combined counter-stiffener and insole for rubber boots.....	225,016	Mar. 2	39	12	17	463
Maris, John F., Cisne, Ill. Fence.....	223,368	Jan. 6	182	48	17	33
Mark, Henry J., and W. F. Martineck, St. Louis, Mo. Bottle-wrapper.....	230,710	Aug. 3	134	39	18	268
Mark, John W., New York, N. Y. Ventilator.....	230,952	Aug. 10	416	120	18	322
Markey, Patrick, Milwaukee, Wis. Sewer catch-basin.....	226,620	Apr. 20	572	159	17	864
Markham, Romondo D. (See Schosson and Markham.)						
Markle, Cassius C. (See Jordan and Markle.)						
Markle, Cassius C., and J. Jordan, Pittsburg, Pa. Recovering soda from spent liquors after treating vegetable fiber.....	229,264	June 29	1326	-----	17	1460
Markle, Cassius C., West Newton, and R. H. Smith, Pittsburg, Pa. Coke-oven.....	235,368	Dec. 14	382	105	18	1352
Markle, Walter, Denver, Colo. Fence-post.....	224,454	Feb. 10	555	159	17	314
Marks, Amasa A., Greenwich, Conn. Artificial foot.....	234,596	Nov. 16	969	258	18	1165
Marks, Amasa A., Greenwich, Conn. Artificial limb.....	234,597	Nov. 16	970	258	18	1165
Marks, George M., Fowler, Pa. Sulky-plow.....	228,659	June 8	599	160	17	1329
Marks, James F., assignor to himself and J. W. Stroh, Crawfordsville, Ind. Traction-engine.....	232,739	Sept. 28	1031	283	18	717
Marlin, John M. (See Wheeler, Henry F., assignor.) (Reissue.)						
Marlin, John M., New Haven, Conn. Magazine fire-arm.....	234,309	Nov. 9	591	161	18	1093
Marlin, Samuel G., Clarion, Pa. Washing-machine.....	235,093	Dec. 7	35	11	18	1287
Marquardt, J. George. (See Moulton and Marquardt.)						
Marquis, James B., Norwich, N. Y. Cheese-vat.....	223,366	June 1	232	65, 66	17	1264
Marr, Ernest, <i>et al.</i> (See Franta, Joseph F., assignor.)						
Marr, Mehettable T., <i>et al.</i> (See Marr, William C., assignor.)						
Marr, William C., Onawa, Iowa, assignor to M. Vincent and M. T. Marr. Revolving sulky-scraper.....	232,738	Sept. 28	1030	283	18	717
Marrder, Charles A., New York, N. Y. Hot-air and steam engine.....	233,263	Oct. 12	576	{ 159 160 }	{ 18 18 }	841
Marring, James M., <i>et al.</i> (See Fry, Charles H., Jr., assignor.)						
Mars, James A. (See Horne, George W., assignor.)						
Marschall, Anthony. (See Marschall, Casper L. and A.)						
Marschall, Anthony and C. L., Evansville, Ind. Harness-buckle.....	232,526	Sept. 21	788	213	18	669
Marschall, Casper L. (See Marschall, Anthony and C. L.)						
Marschall, Casper L. and A., Evansville, Ind. Buckle.....	234,310	Nov. 9	591	161	18	1093
Marsden, Mark W., Connellsville, Pa. Shawl-strap handle and boot-jack.....	226,766	Apr. 20	729	204	17	889
Marsden, Mark W., Connellsville, Pa. Picture-hanger.....	227,279	May 4	216	61	17	1013
Marsden, Samuel L., New Haven, Conn. Compensating toggle-bearing.....	227,554	May 11	533	154	17	1077
Marsden, Samuel L., New Haven, Conn. Stone-crusher.....	230,304	July 20	937	266	18	168
Marsden, William W., Baltimore, Md. Feed-cutter.....	231,826	Aug. 31	1431	402	18	504
Marsh, Austin J., La Crosse, Wis. Combined baby-carriage and cradle.....	229,623	July 6	129	35, 36	18	28
Marsh, Clark and D. E., assignors to Wheeler & Wilson Manufacturing Company, Bridgeport, Conn. Bobbin-holder or ring-slide for sewing-machines.....	227,696	May 18	707	200	17	1114



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Name, residence, and invention.	No.	Date.	Monthly Volume.		Official Gazette.	
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Marsh, Daniel E. (See Marsh, Clark and D. E.)						
Marsh, Elon A., assignor of one-half to M. Lafever, Battle Creek, Mich. Steam-engine valve-gear	236,052	Dec. 28	1232	340	18	1509
Marsh, Franklin, Oskaloosa, Iowa. Draft-equalizer	225,709	Mar. 23	868	254	17	637
Marsh, Henry, New Milford, Conn. Metallic fence	225,153	Mar. 2	197	55	17	490
Marsh, Henry C., Baltimore Md. Air-pad for harness	226,239	Apr. 6	107	29	17	765
Marsh, James A., Cleveland, Ohio. Vapor-burner	232,139	Sept. 14	311	87	18	583
Marsh, James A., Cleveland, Ohio. Reservoir for vapor-stoves	234,880	Nov. 30	1328	357	18	1236
Marsh, James L., Brooklyn, assignor to City Chemical Company, New York, N. Y. Manufacture of aqua-ammonia	230,303	July 20	935	266	18	168
Marsh, James P., Chicago, Ill. Spirometer	225,710	Mar. 23	870	255	17	637
Marsh, Samuel, Glenham, N. Y. Sand-band	223,935	Jan. 27	896	238	17	182
Marsh, Samuel, Glenham, N. Y. Axle-box	235,546	Dec. 14	604	172	18	1390
Marsh, Timothy D., assignor of one-half interest to J. E. Radley, Urbana, Ohio. Lawn-mower	224,706	Feb. 17	845	241	17	374
Marsh, Washington I., Northville, Mich. Whiffletree-guard	223,745	Jan. 20	647	173	17	132
Marshall, Joseph J., Pulaski, Tenn. Grub and stump puller	229,437	June 29	1536	423	17	1488
Marshall, Aaron E., Brazil, Ind. Rotary engine	235,266	Dec. 7	244	67	18	1322
Marshall, A. C., et al. (See Herchelrode, Henry C., assignor.)						
Marshall, Charles S., assignor to himself and H. T. Marshall, Brockton, Mass. Machine for folding leather	227,555	May 11	534	155	17	1077
Marshall, Gavin, Hamilton, Ontario, Canada. Car-brake	235,267	Dec. 7	244	68	18	1322
Marshall, George M., Kilbourn City, Wis. Rotary pump	232,286	Sept. 14	492	137	18	614
Marshall, Howard T. (See Marshall, Charles S., assignor.)						
Marshall, James C., Boston, Mass. Rotary cutter	235,163	Dec. 7	124	35	18	1302
Marshall, John, St. Louis, Mo. Hatchway-gate mechanism	234,919	Nov. 30	1374	370	18	1243
Marshall, John E., Kalamazoo, Mich. Harrow. (Reissue)	9,495	Dec. 7	329	91	18	1337
Marshall, Moses, assignor to Lamb Knitting Machine Company, Chicopee Falls, Mass. Knitting-machine	232,834	Oct. 5	50	15	18	746
Marshall, Robert S., Allegheny, Pa. Cradle	234,311	Nov. 9	592	161	18	1093
Marshall, William P., Legansport, Ind. Combined door-plate, card-receiver, and indicator	231,596	Aug. 24	1151	322	18	453
Marshall, William S., Batavia, Ill. Mechanical movement for windmills	227,909	May 25	968	277	17	1167
Marshall, William S., Batavia, Ill. Mechanical movement for windmills	227,910	May 25	969	278	17	1167
Marshall, William S., Batavia, Ill. Mechanical movement	227,911	May 25	970	278	17	1167
Marsielje, Peter, Rochester, N. Y. Boot and shoe tree	223,811	Jan. 27	740	199	17	158
Marsters, Enoch J., Stockton, Cal. Derrick	229,624	July 6	129	36	18	28
Marsters, Enoch J., Stockton, Cal. Windmill	234,138	Nov. 9	383	105	18	1057
Marston, Edward M., Waterville, Me. Shank-making machine	229,438	June 29	1536	423	17	1488
Mart, Samuel, Sutton-at-home, county of Kent, and C. W. Bradley, York Street, county of Surrey, England. Apparatus for heating or cooling water	224,198	Feb. 3	259	75	17	246
Martel, Adelard F., Montreal, Quebec, Canada. Device for preventing collisions with disabled trains	229,048	June 22	1093	297	17	1418
Martens, Charles, et al. (See Bauder, Adam, assignor.)						
Martin, Abram J., Catskill, N. Y. Electric-lighting apparatus	223,524	Jan. 13	389	104	17	81
Martin, Abram J., Catskill, N. Y. Electric-lighting apparatus	232,357	Sept. 21	587	162	18	636
Martin, Albin P., et al. (See Pillsbren, Konrad T., assignor.)						
Martin, Andrew D., Abbeville, La. Saddle-blanket	223,523	Jan. 13	388	104	17	81
Martin, Andrew D., Abbeville, La. Ditching-machine	228,092	May 25	1179	335	17	1201
Martin, Elisha J., Rockville, and E. Taylor; said Taylor assignor to Leonard Silk Company, Warehouse Point, Conn. Machine for cleaning and smoothing silk and other threads	233,156	Oct. 12	447	123	18	818
Martin, Frederick W., Norwich, Conn. Ornamentation of wood	231,233	Aug. 17	752	210	18	382
Martin, George W., Chelsea, Mass. Ornamenting glass	232,369	Jan. 6	182		17	33
Martin, James B., Newark, Ohio. Middlings-purifier	228,367	June 1	234	66	17	1265
Martin, James W., Mishawaka, Ind. Wood-pulp machine	225,292	Mar. 9	378	110	17	532
Martin, Joel W. W., Newington, Conn., assignor to J. E. B., and J. A. Oakley, New York, N. Y. Process and material for fulling and scouring	225,154	Mar. 2	198		17	490
Martin, John E., Concepcion, Chili. Exhaust-nozzle for locomotives	225,937	Mar. 30	1146	325	17	694
Martin, John F., Chicago, Ill. Push-key attachment for annunciators	225,843	Mar. 23	1021	294	17	661
Martin, John F., Chicago, Ill. Wire-conductor for houses	225,844	Mar. 23	1021	294	17	661
Martin, John F., Chicago, Ill. Wire-conductor	225,845	Mar. 23	1022	294	17	661
Martin, John F., Chicago, Ill. Exhibiting-cabinet	225,846	Mar. 23	1023	294	17	661
Martin, John F., Chicago, Ill. Door	225,847	Mar. 23	1024	295	17	661
Martin, Joseph L., Baltimore, Md. Process and apparatus for aging liquors	229,542	July 6	45	12	18	15
Martin, Joseph, assignor of one-half interest to Nance & Palmer, Palestine, Tex. Watch-barrel	227,374	May 11	342	100	17	1044
Martin, Myron R., Brooklyn, Wis. Corn-planter	233,784	Oct. 26	1220	339	18	966
Martin, Samuel W., and C. H. Paxson, assignors to Mast, Foos & Co., Springfield, Ohio. Lawn-mower	229,725	July 6	246	68	18	44
Martin, Thomas, Mechanicsburg, Ohio. Pump attachment	231,964	Sept. 7	114	29	18	542
Martin, Timothy A., New York, assignor to W. A. Colliugwood, Poughkeepsie, N. Y. } Hydropneumatic apparatus	225,293	Mar. 9	378	110 111	17	532
Martin, Whiteford S., Maybinton, S. C. Horse-detaching apparatus	233,530	Oct. 19	915	252	18	904
Martin, William. (See Sellman, Martin, and Balkam.)						
Martin, William, San Francisco, Cal. Stock-car	226,333	Apr. 6	210	61	17	784
Martin, William A., et al. (See Cutter, William P., assignor.)						
Martinek, William F. (See Mark and Martinek.)						
Martyn, Henry, Philadelphia, Pa. Machine for bending wire	227,804	May 18	828	234	17	1133
Marvin, James F., Fort McDowell, Ariz. Ter. Implement for extracting cartridge-shells	235,444	Dec. 14	479	135	18	1369
Marvin, Luke, Rochester, N. Y., assignor of two-thirds interest to R. McKinney, Detroit, Mich., and N. English, Greece, N. Y. Fruit and vegetable drier	233,157	Oct. 12	448	123	18	818
Marvin Safe and Scale Company. (See Covert, Henry W., assignor.)						
Marvine, George E. (See Johnson, William H., assignor.) (Reissue.)						
Marvine, George E., Delhi, N. Y. Traveling-trunk	233,683	Oct. 26	1111	309	18	947
Marx, Ernest. (See Carvalho, David N., assignor.)						
Marx, Ernest. (See Carvalho, David N., assignor.) (Reissue.)						
Marx, Ernest, et al. (See Klemm, Frank A., assignor.)						
Marx, Ernest, et al. (See Tisdell, Abner G., assignor.)						
Marx, Ernest, New York, N. Y. Violin	224,834	Feb. 24	1020	290	17	416
Marx & Son. (See Rubin, Max, assignor.)						
Marx & Son. (See Schöpp, Eduard, assignor.)						
Maschinen Fabrik Augsburg. (See Bissinger, Gustav, assignor.)						
Maskelyne, John N., Egyptian Hall, Piccadilly, county of Middlesex, England. Apparatus for issuing and registering tickets	236,053	Dec. 28	1232	340	18	1509
Mason, Alfred W. J., New Orleans, La. Odorless excavating apparatus	231,827	Aug. 31	1433	403	18	504

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Mason, Charles E., Attleborough, Mass. Forming ornamented hollow metal articles.....	233,422	Oct. 19	793	219	18	884
Mason, Charles E., Attleborough, Mass. Separable button.....	233,423	Oct. 19	795	219	18	884
Mason, Charles T., Sumter, S. C. Compensating-pendulum.....	230,305	July 20	938	267	18	169
Mason & Co. (See Hipwell, George, assignor.)						
Mason, Edward T., and F. A. Bergman, Chicago, Ill. Can-top.....	230,885	Aug. 10	346	100	18	311
Mason, George, <i>et al.</i> (See Eli, Frederic, assignor.)						
Mason, George W., Washington, D. C. Child's carriage.....	233,362	Oct. 19	719	{ 196 197 }	{ 18	872
Mason, George W., Sharon, Pa. Artificial stone.....	234,833	Nov. 23	1265	.....	18	1219
Mason & Hamlin Organ Company. (See Briggs, John C., assignor.)						
Mason & Hamlin Organ Company. (See Matthews, Mason J., assignor.) (Reissue.)						
Mason, Henry A. H., Denton, Md. Artificial stone.....	232,287	Sept. 14	493	.....	18	614
Mason, Henry W., South Coventry, Conn. Paper patch or case for bullets.....	229,327	June 29	1413	387	17	1471
Mason, John, East Saginaw, Mich. Cleaning salt-wells.....	224,024	Feb. 3	60	18	17	213
Mason, Nicholas, Somerville, Mass. Geometrical puzzle-block.....	232,140	Sept. 14	312	88	18	583
Mason, Seth C., and J. L. Hanson, Somerville, Mass. Shield for railway-cars.....	234,416	Nov. 16	738	199	18	1126
Mason, William, Taunton, Mass. Locomotive-engine.....	227,029	Apr. 27	1058	293	17	953
Mason, William, Taunton, Mass. Mechanism for supporting the spindles of ring-spinning frames.....	230,306	July 20	939	267	18	169
Mason, William B., assignor to G. M. Patten, Boston, Mass. Seal-lock.....	229,003	June 22	1049	286	17	1412
Mason, Winslow, and W. R. Groat, Canastota, N. Y. Head for compound cutter-bars for harvesters.....	233,866	Nov. 2	48	13	18	995
Massey, James R., Argo, Ala. Horse-power.....	234,682	Nov. 23	1085	291	18	1190
Massey, Orren E. and O. W., Macon, Ga. Condenser for cotton-gins.....	233,755	Oct. 26	1221	340	18	966
Massey, Orren W. (See Page, George S., assignor.)						
Massey, Thomas C., Batavia, Ill. Can-spout.....	227,697	May 18	708	200	17	1115
Massey, William W., Elyria, Ohio. Folding and extension measuring-rod.....	230,640	Aug. 3	55	16	18	255
Massen, Joseph, St. Louis, Mo. Plow.....	235,369	Dec. 14	385	105	18	1353
Mast, Foss & Co. (See Martin and Paxson, assignors.)						
Mastu, Daniel, Binghamton, N. Y. Combined square and level.....	228,768	June 15	760	{ 208 209 }	{ 17	1363
Masury, John W., New York, N. Y. Metallic package for paints, &c.....	226,180	Apr. 6	39	10	17	753
Matcham, George D., Pittsfield, Ohio. Scraper.....	234,834	Nov. 23	1265	340	18	1219
Mather, Charles A. (See Bridgman and Perry, assignors.)						
Mather, Frank J. (See Page, George S., assignor.)						
Mather, Henry, assignor of one-half interest to J. Bryan, New York, N. Y. Gate-valve.....	225,711	Mar. 23	870	255	17	637
Mather, Henry, Philadelphia, Pa. Grate.....	233,783	Oct. 26	1219	339	18	966
Mather, James, Harwinton, Conn. Annealing metal.....	234,193	Nov. 9	453	123	18	1070
Mather, Richard H., Windsor, Conn. Dynamometer for rotary shafts.....	235,164	Dec. 7	126	36	18	1302
Mathers, Joseph W., <i>et al.</i> (See Tweedle, Benjamin, assignor.)						
Mathes, Philip, Idlewood, assignor to Jacobus & Nimick Manufacturing Company, Pittsburg, Pa. Manufacture of key-blanks.....	225,227	Mar. 9	292	83	17	519
Mathes, Philip, Idlewood, Pa. Door-latch.....	232,529	Sept. 21	792	290	18	670
Matheson, George, McKeesport, Pa. Testing-machine.....	225,529	Mar. 16	652	{ 190 191 }	{ 17	589
Matheson, George, McKeesport, Pa. Forming plugs for welding tubes.....	227,635	May 18	632	181	17	1103
Matheson, George, McKeesport, Pa., assignor to himself and National Tube Works Company, Boston, Mass. Rolling-mill.....	227,636	May 18	633	{ 181 182 }	{ 17	1104
Mathews, Don C., Lynn, Mass. Burnishing-machine for boot and shoe soles.....	225,228	Mar. 9	292	83	17	519
Mathews, James M. and R. P., Owatonna, Minn. Pump.....	235,547	Dec. 14	605	172	18	1390
Mathews, John F., Stamford, Conn. Dumping-car.....	232,528	Sept. 21	792	219	18	670
Mathews, Rufus P. (See Mathews, James M. and R. P.)						
Mathewson, Nathan F., Providence, R. I. Button and stud.....	224,098	Feb. 3	156	42	17	528
Mathewson, Selma R., Rio Vista, Cal. Billiard-table.....	229,625	July 6	130	36	18	28
Mathieu, Jean A., Hunter's Lake, Pa. Apparatus for purification of the products resulting from distillation of wood.....	234,998	Nov. 20	1471	{ 395 396 }	{ 18	1260
Mattern, Charles, Jersey City Heights, N. J. Child's carriage.....	226,767	Apr. 20	730	204	17	889
Mattfeldt, Henry J., Louisville, Ky. Apparatus for curing tobacco.....	227,280	May 4	217	64	17	1013
Matthai, John C., <i>et al.</i> (See Knapp, George W., assignor.)						
Matthai, Richard, and C. A. Clinton, San Francisco, Cal. Station-indicator.....	231,138	Aug. 10	622	175	18	355
Matthai, William <i>et al.</i> (See Knapp, George W., assignor.)						
Matthes, C. Frederick, Lyons, N. Y. Coffee-pot.....	227,805	May 18	830	234	17	1133
Matthews, Elbridge G., Le Sauk, Minn. Plow.....	224,455	Feb. 10	556	160	17	314
Matthews, Elbridge G., St. Cloud, Minn., assignor, by mesne assignments, to D. True. Dory-boat knee. (Reissue.)	9,049	Feb. 17	930	265	17	388
Matthews, Elbridge G., assignor to H. B. Hakes, Worcester, Mass. Seeding-drill.....	231,920	Sept. 7	48	12	18	532
Matthews, Jacob S. (See Williams and Matthews.)						
Matthews, James, No. 109 White Ladies Road, Clifton, county of Gloucester, England. Tramway and other locomotives.....	223,746	Jan. 20	647	174	17	132
Matthews, John. (See Albertson, Albert, assignor.)						
Matthews, John. (See Bigelow, Edmund, assignor.) (Reissue.)						
Matthews, John, New York, N. Y. Soda-water apparatus. (Reissue.).....	9,028	Jan. 6	259	69	17	47
Matthews, John, New York, N. Y. Box for hottles. (Reissue.).....	9,090	Feb. 17	930	265	17	388
Matthews, John, New York, N. Y. Refrigerator. (Reissue.).....	9,132	Mar. 30	1397	393	17	734
Matthews, John, New York, N. Y. Siphon-bottle for aerated liquids.....	231,597	Aug. 24	1151	322	18	453
Matthews, John, New York, N. Y. Sirup-tank for soda-water-dispensing apparatus.....	231,921	Sept. 7	50	12	18	533
Matthews, Mason J., Boston, Mass., assignor, by mesne assignments, to Mason & Hamlin Organ Company. Reed-organ. (Reissue.)	9,218	May 25	1263	357	17	1214
Matthiessen, Conrad H., Odell, Ill. Road-scraper.....	230,307	July 20	940	267	18	169
Matthiessen, Franz O., <i>et al.</i> (See Humphrey, Henry C., assignor.)						
Matthiessen, Franz O. (See Williams, Samuel T., assignor.)						
Matthiessen, Franz O., Irvington, N. Y., and E. E. Quimby, Orange, assignors to F. O. Matthiessen & Wiechers Sugar Refining Company, Jersey City, N. J. Centrifugal liquoring apparatus.....	223,525	Jan. 13	390	104	17	81
Matthiessen, Franz O., Irvington, N. Y. Centrifugal apparatus for liquoring hard sugar.....	225,939	Mar. 30	1147	326	17	695
Matthiessen & Wiechers Sugar Refining Company, F. O. (See Matthiessen and Quimby, assignors.)						
Matthiessen & Wiechers Sugar Refining Company, F. O. (See Quimby, Edward E., assignor.)						
Mattison, Fannie L., <i>et al.</i> (See Sutton, Lyman W., Jr., assignor.)						
Mattoon, Jonathan M., Geneva, Kans. Churn.....	231,436	Aug. 24	970	273	18	425
Mattson, Morris, New York, N. Y. Water-bag.....	230,711	Aug. 3	134	40	18	268
Matz, Joseph, <i>et al.</i> (See Trublood, Jeremiah W., assignor.)						
Matz, Joseph, assignor of two-thirds interest to J. W. Trublood and J. B. Wells, Bicknell, Ind. Adjustable stove-leg.....	226,530	Apr. 13	454	128	17	833

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Matzka, Ernest G. (See Laurens and Matzka.)						
Mauger, Mary A. (See Mauger, Victor E., assignor.)						
Mauger, Victor E., assignor to M. A. Mauger, New York, N. Y. Gelatine-capsule machine.	232,835	Oct. 5	51	15	18	747
Maule, Francis I., Philadelphia, Pa. Rod and pipe cutter.	225,403	Mar. 9	502	145	17	553
Maule, Francis I., Philadelphia, Pa. Pipe-vice for bench-rices.	226,410	Apr. 13	302	87	17	810
Maus, Clement A., Indianapolis, Ind. Liquid-cooler.	224,202	Feb. 3	265	76	17	247
Mauzey, James P., Blackfoot, Mont. Ter. Solar heater.	227,028	Apr. 27	1057	293	17	953
Maxey, William H., Homer, La. Tether.	225,404	Mar. 9	503	145	17	553
Maxlimer, Theodore L., New York, N. Y. Fastener for bird-cages.	230,795	Ang. 3	229	66	18	284
Maxim, Hiram S., Brooklyn, assignor to S. D. Schuyler, New York, N. Y. Dynamo-electric machine.	228,543	June 8	459	124	17	1309
Maxim, Hiram S., Brooklyn, assignor to S. D. Schuyler, New York, N. Y. Dynamo-electric machine.	228,544	June 8	462	125	17	1309
Maxim, Hiram S., Brooklyn, assignor to S. D. Schuyler, New York, N. Y. Commutator for magneto-electrical machines.	228,545	June 8	463	125	17	1309
Maxim, Hiram S., Brooklyn, assignor to S. D. Schuyler, New York, N. Y. Brush for magneto-electric machines.	228,546	June 8	464	125	17	1309
Maxim, Hiram S., Brooklyn, assignor to S. D. Schuyler, New York, N. Y. Gas apparatus.	228,547	June 8	465	125	17	1309
Maxim, Hiram S., Brooklyn, assignor to S. D. Schuyler, New York, N. Y. Manufacturing carbon conductors.	230,309	July 20	942	268	18	169
Maxim, Hiram S., Brooklyn, assignor to S. D. Schuyler, New York, N. Y. Electric lamp.	230,310	July 20	944	268	18	169
Maxim, Hiram S., Brooklyn, assignor to S. D. Schuyler, New York, N. Y. Electric lamp.	230,953	Aug. 10	417	121	18	322
Maxim, Hiram S., Brooklyn, assignor to S. D. Schuyler, New York, N. Y. Removing air from globes of electric lamps.	230,954	Aug. 10	419	121	18	322
Maxim, Hiram S., Brooklyn, assignor to S. D. Schuyler, New York, N. Y. Dynamo-electric machines.	233,942	Nov. 2	131	36	18	1009
Maxim, Hiram S., Brooklyn, assignor, by mesne assignments, to United States Electric Lighting Company, New York, N. Y. Electric lamp.	234,835	Nov. 23	1267	{ 340 } { 341 }	{ 18 } { 18 }	{ 1220 } { 1220 }
Maxou, Lee W., Juniata, Nebr. Water-elevator.	232,531	Sept. 21	794	220	18	670
Maxwell, A. L. (See De Groat, William N., assignor.)						
Maxwell, David, Paris, Ontario, Canada. Harvesting-machine.	235,548	Dec. 14	607	173	18	1390
Maxwell, James A., and J. P. Silliman, Allegheny, Pa. Boiler-setting.	234,136	Nov. 9	381	105	18	1057
Maxwell, James R. (See Cope and Maxwell.)						
May, Daniel, Lumberton, N. C. Vehicle-wheel hub.	227,806	May 18	831	235	17	1133
May, Elihu, Lincoln County, Miss. Plow.	232,530	Sept. 21	793	220	18	670
May, John M., Cedar Rapids, Iowa. Windmill.	227,175	May 4	101	29	17	994
May, Samuel, Toronto, Canada. Billiard-cushion.	233,531	Oct. 19	915	252	18	904
May, William, Binghamton, N. Y. Hand-truck.	232,197	Sept. 14	381	106	18	594
Mayall, Thomas J., Reading, Mass. Closing the openings in india-rubber bottles, &c.	228,207	June 1	51	16	17	1235
Mayall, Thomas J., Reading, Mass. Rubber overshoe.	228,769	June 15	760	209	17	1363
Maybee, M. Addie, assignor of one-half interest to W. Duffus, Syracuse, N. Y. Plaiting-machine.	224,201	Feb. 3	263	76	17	247
Maybury, Joseph T., Mobile, Ala. Canning oysters.	230,561	July 27	1268	.....	18	230
Maybury, Joseph T., Mobile, Ala. Process preliminary to the canning of oysters. (Reissue.)	9,509	Dec. 21	974	.....	18	1460
Mayer, Abraham, New York, N. Y. Optometer.	234,598	Nov. 16	970	258	18	1165
Mayer, Alfred M., South Orange, N. J. Topophone.	224,199	Feb. 3	260	75	17	246
Mayer, Henry, Heidelberg, Germany. Socket for tent-poles.	224,200	Feb. 3	262	76	17	247
Mayer, Louis. (See Brown and Mayer.)						
Mayfield, William D., Fort Worth, Tex. Water-elevator.	235,956	Dec. 28	1124	310	18	1491
Mayhew, David. (See Keeney, Fielding H., assignor.)						
Maynadier, Gustavus B. (See Kenyon, Wiley, assignor.) (Reissue.)						
Maynard, Henry S., Chicago, Ill. Pill-box.	229,543	July 6	46	12	18	15
Maynard, Henry S., Chicago, Ill. Device for coating pills with a semi-fluid.	229,544	July 6	47	12	18	15
Maynard, Sylvester F., and H. N. Parker, assignors to W. S. Reed, Leominster, Mass. Toy.	231,435	Aug. 24	969	273	18	425
Maynard, Washburn, U. S. Navy, Knoxville, Tenn., assignor to W. N. Hill, trustee, Newport, R. I. Galvanic battery.	224,343	Feb. 10	430	123	17	293
Mayne, Charles L., Hope, Ark. Bathing-glove.	235,268	Dec. 7	246	68	18	1322
Mayo, Peter H., Richmond, Va. Apparatus for treating tobacco.	228,770	June 15	761	209	17	1363
Mayo, Thomas J., Paintsville, Ky. Mail-bag.	230,308	July 20	941	267	18	169
Mayo, William H., St. Joseph, Mich. Circular-knitting machine.	226,091	Mar. 30	1330	375	17	723
Mayor, Thomas, Providence, R. I. Ring-spinning frame.	224,344	Feb. 10	431	{ 123 } { 124 }	{ 17 } { 17 }	{ 294 } { 294 }
Mays, Francis A. (See Booker, David, assignor.)						
Mazza, Gaspare, Turin, Italy. Injector and condenser.	233,532	Oct. 19	916	252	18	904
McAdams, George F. (See McAdams, John, W. A., and G. F.)						
McAdams, John, Boston, Mass., W. A. and G. F. McAdams, Brooklyn, N. Y. Pen-lifter for ruling-machines.	227,030	Apr. 27	1059	294	17	953
McAdams, William A. (See McAdams, John, W. A., and G. F.)						
McAleer, Philip, Washington, D. C. Cigar-box for prevention of revenue frauds.	225,848	Mar. 23	1024	295	17	662
McAlister, Hugh R., Philadelphia, Pa. Brake-shoe.	224,456	Feb. 10	557	160	17	314
McAllister, Alexander F., Marshall, Tex. Machine for filing gin-saws.	231,340	Ang. 17	862	243	18	400
McAllister, Willis E. (See McDonald and McAllister.)						
McAlpin, Edwin A., New York, N. Y. Sealing packages.	228,368	June 1	234	66	17	1265
McAlpine, James, New Haven, Conn. Ear-piercer.	234,881	Nov. 30	1328	358	18	1236
McAnespey, John, Philadelphia, Pa. Ice-cream beater.	229,726	July 6	248	69	18	45
McAnly, Milton, Forreston, Ill. Chuck.	224,345	Feb. 10	432	124	17	294
McAnulty, John A., Indiana, Pa., assignor to F. Schwan, Columbus, G. W. Clouse, and F. P. Grosscup, Loudonville, Ohio. Horse hay-fork.	233,533	Oct. 19	917	253	18	905
McArthur, George W., Laingsburg, Mich. Barrel-hoop machine.	232,198	Sept. 14	382	106	18	595
McArthur, William, Philadelphia, Pa. Carpet-cleaning machine.	234,049	Nov. 2	274	75	18	1031
McAuley, John G., and W. West, Denver, Colo. Feeder for pulverized fuel.	227,176	May 4	102	29	17	994
McAvoy, Hugh L., Baltimore, assignor of three-fourths interest to J. Fryer, Baltimore County, Md. Vapor-burner.	231,075	Aug. 10	548	155	18	343
McAvoy, Hugh L., assignor to C. Koppelman and J. Fryer, Baltimore, Md. Fruit and oyster packing can.	231,922	Sept. 7	52	12	18	533
McBean, Cyrus, Toronto, Ontario, Canada. Ellipsograph.	233,424	Oct. 19	795	220	18	885
McBean, John C. (See Smith, Chris. N., assignor.)						
McBee, Wiley B., St. Louis, Mo. Casing for stoves.	227,556	May 11	537	155	17	1078
McBride, Edward, St. Mary's, Pa. Piano tuning-pin lock.	235,269	Dec. 7	246	68	18	1322
McCabe, Robert and W., Meadville, Pa. Foot-rest for reclining-chairs.	225,230	Mar. 9	295	84	17	520
McCabe, Thomas W. R., assignor of one-half interest to H. C. Wright and H. C. Selby, Philadelphia, Pa. Hoisting-machine.	231,966	Sept. 7	116	29	18	542
McCabe, William. (See McCabe, Robert and W.)						
McCabe, William, New York, N. Y. Corset-clasp.	225,849	Mar. 23	1025	295	17	662

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
McCaffrey, John, assignor of one-half to C. H. Smith, Lawrence, Mass. Device for lubricating loose pulleys.	235,094	Dec. 7	36	11	18	1287
McCain, John A. (See Holloway and McCain.)						
McCall, Edwin R., Lockport, N. Y. Cultivator-tooth.	226,531	Apr. 13	454	128	17	833
McCall, Edwin R., Lockport, N. Y. Plow attachment.	226,667	Apr. 20	627	175	17	872
McCall, Edwin R., Lockport, N. Y. Plow attachment.	228,916	June 15	933	254	17	1387
McCall, James R., Schoolcraft, Mich. Barrel and box caster.	231,829	Aug. 31	1434	403	18	504
McCall, John A., Topeka, Kans. Flambeau.	233,425	Oct. 10	796	220	18	885
McCall, John L., Georgetown, assignor of one-half interest to P. H. Gerhard, Austin, Tex. Seeding-machine.	229,439	June 29	1537	423	17	1489
McCalmont, Hiram R., Washington, D. C. Book-mark.	229,626	July 6	132	37	18	28
McCammon, Edward, Albany, N. Y. Action-hanger for upright piano-fortes.	235,370	Dec. 14	386	105	18	1352
McCann, Marion W., Henry, Ind. Car-coupling.	230,796	Aug. 3	229	66	18	284
McCarter, Thomas, and T. Cooper, Londonderry, Ireland. Screw-steamship.	235,691	Dec. 21	782	220	18	1427
McCarty, Cremora F. and W., Boston, assignors of four-fifths interest to F. Amory, Beverly, and S. Snow, Cambridge, Mass. Flat-iron.	230,641	Aug. 3	56	16	18	256
McCarty, Jacob C., Edray, W. Va. Compound for fuel and fire-kindlers.	229,159	June 22	1213		17	1436
McCarty, William. (See McCarty, Cremora F. and W.)						
McCaskey, John, and D. D. Douds, New Castle, Pa. Car-wheel.	232,288	Sept. 14	494	137	18	614
McCanley, George, and B. J. Cadz, Washington, D. C. Filter.	281,494	Aug. 24	1033	289	18	435
McCauley, Reuben A., Baltimore, Md. Sewage-transportation tank.	225,850	Mar. 23	1025	296	17	662
McCausland, William J., Philadelphia, Pa. Paper cop-tube.	227,281	May 4	218	64	17	1014
McCaw, Alexander, J. Stevenson, and J. P. Orr, Belfast, Ireland. Manufacture of transparent or other paper and cloth, &c.	233,787	Oct. 26	1224	340	18	967
McClain, Andrew, Nashville, Tenn. Animal-trap.	225,624	Mar. 16	759	223	17	609
McClain, John C., Indianapolis, Ind. Apparatus for illustrating the principles of music.	220,545	July 6	48	13	18	15
McClave, William, Pittston, assignor of one-half interest to J. A. Price, Scranton, Pa. Stove-grate.	225,623	Mar. 16	757	223	17	608
McClearn, Henry T., et al. (See Fairbairn, William U., assignor.)						
McClellan, Edward J., Brooklyn, N. Y. Cake-stirrer.	228,914	June 15	931	253	17	1386
McClelland, Clark, Geneva, Iowa. Thatched roofing.	223,269	Oct. 12	578	160	18	841
McClelland, Robert W., Clinton, Ill. Tongue-hound for wagons.	234,600	Nov. 16	972	259	18	1165
McClintock, Charles H. (See Gilman and Wiswell, assignors.)						
McClintock, William A., assignor of two-thirds interest to J. Cripe, Jr., E. R. Saylor, and W. M. Harsha, Cerro Gordo, Ill. Grain-car door.	229,440	June 29	1539	424	17	1489
McCloskey, John, New York, N. Y. Manufacture of plumbers' traps.	228,369	June 1	235	66, 67	17	1265
McClung, James. (See Drain, McClung, and Penrose.)						
McClung, James I., Sidney, Ohio. Cylinder for thrashing or hulling.	234,599	Nov. 16	971	258	18	1165
McClure, Daniel R., et al. (See Miller, John F., assignor.)						
McClure, John, Greenleaf, Mo. Churn.	233,786	Oct. 26	1223	340	18	966
McClure, John W. K. (See Jenks, M. Woodburn, assignor.)						
McClarkin, John C., Morning Sun, Iowa. Ditching-plow.	231,598	Aug. 24	1152	322	18	453
McClusky, Thomas, assignor of five-eighths to J. Eastwood, Belleville, N. J. Power-loom for weaving wire-cloth.	235,371	Dec. 14	386	106	18	1353
McCoid, M. A., et al. (See Bartels, William H., assignor.)						
McColl, John, South Ryegate, Vt. Ore-concentrator.	228,915	June 15	932	253	17	1386
McCollum, Henry, administrator. (See Parr, Joseph, assignor.) (Reissue.)						
McCollum, Matthew C., Espy, Pa. Step-ladder.	235,165	Dec. 7	127	36	18	1303
McComb, James J. (See Hale, Edward, assignor.)						
McComb Manufacturing Company. (See McComb, Marshall, assignor.)						
McComb, Marshall, assignor to McComb Manufacturing Company, Pittsburg, Pa. Machine for marking shingles.	235,095	Dec. 7	37	12	18	1287
McConaughey, Thomas B., Newark, Del. Corn-planter.	224,099	Feb. 3	151	43	17	228
McConnell, Hugh, Cleveland, Ohio. Broiler.	232,896	Oct. 5	122	32	18	758
McConnell, Hugh, Cleveland, Ohio. Oven.	232,897	Oct. 5	122	32	18	758
McConnell, John A., Hulton, Pa. Carriage spring and reach.	229,898	July 13	454	126	18	84
McCool, Horace B., Pottsville, Pa. Egg-beater.	232,358	Sept. 21	591	162	18	636
McCord, Christopher C. P., Walnut Grove, Ark. Safety-pulley.	231,828	Aug. 31	1433	403	18	504
McCormack, William J., Paignton, England. Screw-cutting die.	232,533	Sept. 21	795	221	18	671
McCormick, C. H. & L. J. (See Withington, Charles B., assignor.)						
McCormick, Cyrus H., et al. (See Withington, Charles B., assignor.)						
McCormick, Edward W., Bridgeport, Conn. Straight-way valve.	225,229	Mar. 9	294	84	17	519
McCormick, Erastus T., and J. W. Bashaw, Minneapolis township, Hennepin county, Minn. Harvester.	232,048	Sept. 7	206	56	18	558
McCormick, George. (See Carviness and McCormick.)						
McCormick, George W., assignor of one-half interest to N. R. Haring, Newark, N. J. Lamp-wick.	224,203	Feb. 3	266	77	17	247
McCormick Harvesting Machine Company. (See Withington, Charles B., assignor.)						
McCormick, James F., Louisville, Ky. Lifting-jack.	229,727	July 6	249	69	18	45
McCormick, John B., et al. (See Fry, Charles H., Jr., assignor.)						
McCormick, John G., Louisville, Ky. Reverberatory furnace.	234,194	Nov. 9	453	123	18	1070
McCormick, John J., et al. (See Kittell, Ferdinand A., assignor.)						
McCormick, John R., Georgetown, Tex. Sulky-plow.	234,683	Nov. 23	1086	292	18	1190
McCormick, J. J., et al. (See Bates, Samuel A., assignor.)						
McCormick, Leander J., et al. (See Withington, Charles B., assignor.)						
McCormick, Lorenzo A. (See Hadden and McCormick.)						
McCormick, Robert H., et al. (See Withington, Charles B., assignor.)						
McCorvie, Archibald, Locknow, Ontario, Canada. Tug-clip.	232,532	Sept. 21	795	220	18	671
McCosker, Thomas, Baltimore, Md. Oyster-float.	232,740	Sept. 28	1034	283	18	718
McCoubrey, James. (See Quinton, George, assignor.)						
McCoy, John, assignor to National Steamed Grain Company, New York, N. Y. Apparatus for drying and renovating grain, &c.	227,376	May 11	346	100	17	1045
McCoy, John F., Beverly, N. J. Tire-upsetter.	227,557	May 11	537	155	17	1078
McCray, Thomas H., Tyronza, Ark. Steam-plow.	226,921	Apr. 27	931	258	17	933
McCray, Thomas H., Tyronza, Ark. Steam-plow.	234,882	Nov. 30	1329	358	18	1236
McCray, Thomas H., Tyronza, Ark. Rotary plow.	235,372	Dec. 14	388	106, 107	18	1353
McCrea, Frederick B., Ealing, and E. A. Cowper, Westminster, England. Apparatus for chopping sugar into lumps.	229,728	July 6	240	69, 70	18	45
McCready, Benjamin F. (See Binkley, John, assignor.)						
McCreary, George W., Baltimore, Md. Bullet and shot machine.	227,807	May 18	831	235	17	1134
McCrodden, James, New York, N. Y. Filling and packing machine.	225,940	Mar. 30	1148	326	17	695
McCullough, Joseph, Philadelphia, Pa. Paper bag.	224,934	Feb. 24	1138	322	17	434



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McCullough, Samuel C., Ottumwa, Iowa. Washing-machine.....	229,441	June 29	1539	424	17	1489
McCullough, Samuel G., Sidney, Ohio. Folding chair.....	226,092	Mar. 30	1332	376	17	723
McCully, Robert, Philadelphia, Pa. Bottle stopper and fastener.....	223,526	Jan. 13	392	104	17	82
McCully, Robert, Philadelphia, Pa. Belt-fastening.....	225,405	Mar. 9	504	145	17	553
McCurdy, David, Ottawa, Ohio. Sash-fastener.....	235,793	Dec. 21	898	251	18	1446
McCutchen, William A., <i>et al.</i> (See Reed, John J., assignor.)						
McDaniel, John S. (See Danby, James, assignor.)						
McDermid, John, Rockford, Ill. Head for barrels or churns.....	232,997	Oct. 5	240	66	18	778
McDermid, John, Rockford, Ill. Revolving churn-head.....	235,549	Dec. 14	608	173	18	1391
McDermid, Archibald, West Fitchburg, Mass. Machine for preventing waste of paper-pulp.....	230,029	July 13	602	167	18	107
McDermott, James, Louisville, Ky. Mold for dog-irons.....	225,712	Mar. 23	871	255	17	637
McDermott, John P., Galveston, Tex. Telephone.....	231,599	Aug. 24	1154	323	18	453
McDermott, Walter. (See Frue and McDermott.)						
McDermitt, Michael M., Charleston, Ill. Harrow.....	229,265	June 29	1327	365	17	1460
McDonald, Alexander. (See Parker and McDonald.)						
McDonald, Alexander, Worcester, Mass. Duplex toilet implement.....	228,660	June 8	599	160	17	1329
McDonald, Alexander B., Oswego, N. Y. Vehicle-hub.....	227,031	Apr. 27	1061	294	17	954
McDonald Boot and Shoe Ventilating Company. (See McDonald, Dominick A., assignor.)						
McDonald, Dominick A., Rockland, Me. Boot and shoe.....	226,532	Apr. 13	455	128	17	833
McDonald, Dominick A., assignor to McDonald Boot and Shoe Ventilating Company, Rockland, Me. Boot and shoe.....	231,830	Aug. 31	1435	403	18	504
McDonald, Hugh. (See Nimmo, George, assignor.)						
McDonald, Hugh. (See Russell and McDonald.)						
McDonald, Hugh, Allegheny, Pa. Furnace-shield.....	226,181	Apr. 6	40	10	17	753
McDonald, Hugh, Allegheny, Pa. Furnace-shield.....	228,548	June 8	467	126	17	1310
McDonald, Hugh, Allegheny, Pa. Furnace-shield.....	228,549	June 8	468	126	17	1310
McDonald, James S. (See Morris, Royal, assignor.)						
McDonald, John W. D., Bembridge, Isle of Wight, Great Britain. Folding boat.....	224,346	Feb. 10	433	124	17	294
McDonald, Kenneth, Portland, Me. Water-heater.....	228,208	June 1	52	16	17	1236
McDonald Manufacturing Company. (See Testenson, Christian, assignor.)						
McDonald, Samuel. (See McDonald Thomas and S.)						
McDonald, Thomas and S., Braddock's Field, assignors of one-third interest to J. M. Nelson, Pittsburg, Pa. Converter-bottom.....	230,142	July 20	747	208	18	139
McDonald, William H. (See Ireland and McDonald.)						
McDonald, William H., Chicago, Ill. Filtering-faucet.....	231,923	Sept. 7	52	13	18	533
McDonald, William R., and W. E. McAllister, Calais, assignor of one-half interest to P. Loring, Portland, Me. Padlock.....	228,371	June 1	238	67	17	1265
McDonough, Frank, Eau Claire, Wis. Lubricator.....	226,868	Apr. 27	868	241	17	923
McDonough, Thomas, Chicago, Ill. Tellurian.....	234,050	Nov. 2	275	75	18	1032
McDonough, William. (See Murphey, Martin, assignor.)						
McDougall, Giles E., <i>et al.</i> (See Baker, Jefferson B., assignor.)						
McDougall, Hugh, Brooklyn, N. Y. Sleeve and cuff button.....	228,370	June 1	237	67	17	1265
McDougall, Hugh, Brooklyn, N. Y. Button and stud.....	235,445	Dec. 14	480	135	18	1369
McDougall, Hugh, Brooklyn, N. Y. Button and stud.....	235,446	Dec. 14	481	136	18	1369
McDougall, Ruth, and C. H. Shaw, Denver, Colo. Car-coupling.....	236,054	Dec. 28	1234	340	18	1509
McDuffee, Franklin, Rochester, N. H., assignor, by mesne assignments, to J. L. Hall, Cincinnati, Ohio. Time-lock. (Reissue).....	9,246	June 8	694	190	17	1345
McElroy, Herbert, assignor of one-half interest to F. Lawrence, Philadelphia, Pa. Furnace for steam-boilers.....	232,534	Sept. 21	796	221	18	671
McElroy, Hugh H., Pittsburg, Pa. Arm-rest for writers.....	226,411	Apr. 13	303	87	17	810
McEntire, Richard S., <i>et al.</i> (See Gail, Daniel H., assignor.)						
McFadden, Thomas. (See Smith, Charles A., assignor.)						
McFall, Jay C., Sandusky, Ohio. Grain-binder.....	235,270	Dec. 7	247	69, 70	18	1322
McFarland, Samuel G., Newton, Mass., assignor to J. L. Mott Iron Works, New York, N. Y. Flushing-cistern for water-closets.....	228,264	June 1	131	36	17	1247
McFarland, Samuel G., Newton, Mass., assignor to J. L. Mott Iron Works, New York, N. Y. Bath waste and overflow.....	229,627	July 6	132	37	18	28
McGaffey, Ives W., Chicago, Ill., assignor to E. B. Preston. Nozzle for hose. (Reissue).....	9,081	Feb. 17	914	261	17	385
McGann, Owen J., assignor of one-half interest to D. A. Strong, Chicago, Ill. Velocipede.....	230,428	July 27	1121	315	18	205
McGee, Abram J. (See Murray and Holt, assignors.)						
McGee, Augustus M., Cleveland, Ohio. Furnace for heating bolt-blanks.....	230,955	Aug. 10	420	121	18	322
McGee, Charlotte A., Jackson, Mich. Corset. (Reissue).....	9,496	Dec. 7	330	91	18	1337
McGeorge, James, assignor to himself and A. L. Baron, Bellaire, Ohio. Belt-fastener.....	223,598	Jan. 13	476	128	17	96
McGibeny, Sylvester H., West Almond, assignor of two-thirds interest to R. H. Charles, Angelica, and F. M. Sheldon, Hornellsville, N. Y. Stock-car.....	224,707	Feb. 17	846	241	17	374
McGibeny, Sylvester H., West Almond, assignor to himself, R. H. Charles, Angelica, and F. M. Sheldon, Hornellsville, N. Y. Stock-car.....	232,611	Sept. 28	888	245	18	693
McGill, George W. (See Lotz and Lemon, assignors.)						
McGlensey, John, New York, N. Y. Protecting iron columns from fire.....	227,985	May 25	1061	302	17	1181
McGlinchy, John, assignor of one-fourth interest to C. A. Shaw, Boston, Mass. Egg-holder.....	225,530	Mar. 16	653	191	17	589
McGoen, Dominick. (See Perin, Horan, and McGoen.)						
McGovern, Bernard, assignor of one-half interest to J. D. Frary, Bridgeport, Conn. Handle for pocket-cutlery.....	232,996	Oct. 5	239	66	18	778
McGovern, Edward, Oneonta, assignor of one-half to R. C. Blackall, Albany, N. Y. Securing boiler-tubes.....	234,312	Nov. 9	593	162	18	1094
McGowan, John H., Cincinnati, Ohio. Tobacco-press.....	226,334	Apr. 6	211	61	17	784
McGowan, John H., Cincinnati, Ohio. Hydrostatic press.....	226,335	Apr. 6	213	62	17	785
McGowan, John H., Cincinnati, Ohio. Hydrostatic press.....	230,429	July 27	1122	315	18	205
McGowan, Theodore J., Cincinnati, Ohio. Water-column for railway water-tanks.....	233,270	Oct. 12	579	160	18	841
McGrath, Julia M. (See McGrath, Thomas F., assignor.)						
McGrath, Thomas F., assignor to himself and J. M. McGrath, Newark, N. J. Latch.....	233,867	Nov. 2	48	13	18	995
McGregor, Thomas, Dayton, Ohio. Portable steam-engine.....	236,055	Dec. 28	1236	341	18	1509
McGregor, Thomas W. (See Murray and McGregor.)						
McGrew, Thomas A. (See Bridges, John, assignor.)						
McGuire, Elwood W. (See Dille and McGuire.)						
McGurren, Edward J., assignor to St. Louis Wire Company, St. Louis, Mo. Sieve.....	224,598	Feb. 17	734	208	17	354
McIlvain, Alexander, <i>et al.</i> (See Hamilton, Thomas H., assignor.)						
McIntire, William S. (See Rogers and McIntire.)						
McIntosh, Alfred A., and L. J. Lishness, Pontiac, Ill. Check-row corn-planter.....	233,534	Oct. 19	918	253	18	905
McIntosh, George F. (See Morse and McIntosh.)						
McIntosh, Samuel J., <i>et al.</i> (See Blatherwick, Nelson J., assignor.)						

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McKay, Gordon. (See Ferren, Myron J., assignor.)						
McKay, Gordon, trustee. (See Applegate, John H., assignor.)						
McKay, Gordon, trustee. (See Blake, Lyman R., assignor.) (Reissue.)						
McKay, Gordon, trustee. (See Fairfield, Hadley P., assignor.)						
McKay, Gordon, trustee. (See Goddu, Louis, assignor.)						
McKay, Gordon, trustee. (See Howard, Thomas S. L., assignor.)						
McKay, Gordon, trustee. (See Withey, James L., assignor.)						
McKay, Gordon, <i>et al.</i> , trustees. (See Goddu, Louis, assignor.) (Reissue.)						
McKay, Gordon, Cambridge, and H. P. Fairfield, West Medford, Mass. Machine for leveling and surfacing heels.....	224,025	Feb. 3	61	18, 19	17	213
McKay, Gordon, Cambridge, Mass. Tension mechanism for sewing-machines.....	229,049	June 22	1093	298	17	1418
McKay, Gordon, Cambridge, Mass. Nailing-machine.....	229,442	June 29	1540	424	17	1489
McKay, Gordon, Cambridge, and W. L. Tobey, Lawrence, Mass., assignors to G. McKay, trustee. Nailing-machine.....	230,642	Aug. 3	57	16	18	256
McKay, Gordon, Cambridge, and W. L. Tobey, Lawrence, Mass., assignors to G. McKay, trustee. Nailing-machine.....	230,956	Aug. 10	420	121	18	323
McKay, Gordon, Cambridge, and W. L. Tobey, Lawrence, Mass., assignors to G. McKay, trustee. Nailing-machine.....	230,957	Aug. 10	422	122	18	323
McKay, Gordon, Cambridge, and H. P. Fairfield, West Medford, Mass. Lasting-machine..	231,076	Aug. 10	549	{ 155 156 }	18	343
McKay, Gordon, Cambridge, and H. P. Fairfield, West Medford, Mass. Instep-holder.....	234,488	Nov. 16	823	220	18	1140
McKay, Louis, assignor of two-thirds interest to F. B. and W. H. Mitchell, Boston, Mass. Steam-boiler.....	225,941	Mar. 30	1150	327	17	695
McKay, William, Detroit, Mich. Sheave for pilot-wheel shafts.....	231,071	Aug. 10	545	154	18	342
McKay, William, Detroit, Mich. Nipper for boat-ropes.....	231,072	Aug. 10	546	154	18	342
McKee, David E., Potter Valley, Cal. Sheep-shears.....	230,712	Aug. 3	135	40	18	268
McKee, John L., Cortland Village, N. Y. Pulley and mechanism for counter-shafting.....	229,004	June 22	1052	286	17	1412
McKee, Joseph, New York, N. Y. Carriage-top.....	230,312	July 20	945	268	18	170
McKeever, Timothy W., New York, N. Y. Drum-cymbal.....	224,204	Feb. 3	266	77	17	248
McKellar, Angus. (See Hartman, Henry, assignor.)						
McKellar, Angus, Fort Douglas, Utah Ter. Axle-skein.....	224,935	Feb. 24	1129	322	17	434
McKelvey, John W. and R. J., Rochester, assignors of one-third interest to G. H. Fox, New York, N. Y. Label-holder for mail-bags.....	229,628	July 6	133	37	18	28
McKelvey, Lewis, Pittsburg, Pa. Furnace-door.....	230,958	Aug. 10	423	122	18	323
McKelvey, Robert J. (See McKelvey, John W. and R. J.)						
McKenna, Edward. (See Allsop and McKenna.)						
McKensie, Joseph C., Beaver, Pa. Underground oil-reservoir.....	231,924	Sept. 7	54	13	18	533
McKenzie, Joseph C., Adrian, Mich. Tile-machine. (Reissue).....	9,162	Apr. 20	790	{ 220 221 }	17	899
McKenzie, Joseph C., Adrian, Mich. Brick and tile machine.....	233,535	Oct. 19	919	{ 253 254 }	18	905
McKenzie, William V., Rahway, N. J. Apparatus for refining camphor.....	223,747	Jan. 20	648	174	17	132
McKibbin, William, San Francisco, Cal. Wheelbarrow. (Reissue).....	9,369	Aug. 31	1519	425	18	518
McKinley, Carl, Washington, D. C. Type-writing machine.....	232,741	Sept. 28	1034	284	18	718
McKinley, John P., Black Hawk, assignor to himself and J. L. C. Pate, Carroll County, Miss. Saw-mill head-block.....	231,341	Aug. 17	863	243	18	400
McKinney, Henry D., Janesville, Wis. Toe-weight and quarter-boot attachment for horses. (Reissue).....	9,163	Apr. 20	792	221	17	900
McKinney, Robert, <i>et al.</i> (See Marvin, Luke, assignor.)						
McKittrick, David F. (See Armstrong, Joel, assignor.)						
McKittrick, David F. (See Peckham, William C., assignor.)						
McKittrick, David F., Marysville, Ohio. Heel and shank supporter.....	227,808	May 18	833	235	17	1134
McKnight, John J., Tarrytown, N. Y. Extension-table.....	231,437	Aug. 24	971	274	18	425
McLain, James. (See Bailey, Davis W., assignor.)						
McLain, Warren B., Fond du Lac, Wis. Spring bed-bottom.....	224,835	Feb. 24	1021	{ 290 291 }	17	417
McLane, Edwin P., Mount Carmel, Conn. Machine for tapping nuts.....	227,558	May 11	538	{ 155 156 }	17	1073
McLane, George A., Chicago, Ill. Making hectograph copies.....	233,684	Oct. 26	1112	309	18	947
McLaughlin, Edmund. (See Campbell, Andrew C., assignor.)						
McLaughlin, John C., assignor of one-half interest to T. A. Bissell, Detroit, Mich. Damper-regulator.....	232,350	Sept. 21	592	163	18	636
McLaughlin, John F., Aiken, S. C. Balc-tie.....	230,313	July 20	945	269	18	170
McLean, Andrew, Jersey City, N. J. Loom for weaving gauze fabrics.....	228,372	June 1	241	68	17	1266
McLean, F. J., <i>et al.</i> (See Burton, George F., assignor.)						
McLean, George B., and J. Henry, Galena, Ill. Fence-post.....	233,271	Oct. 12	581	161	18	842
McLean, James H. (See Coloney, Myron, assignor.)						
McLean, James H., St. Louis, Mo. Car-journal and bearing.....	224,205	Feb. 3	267	77	17	248
McLean, William T., Sidney, Ohio. Earth-scraper.....	230,797	Aug. 3	230	67	18	284
McLeod, Charles A. (See Bussey, Esek, assignor.)						
McLeod, William E., Ecorse, Mich. Barrel-hoop machine.....	231,882	Aug. 31	1502	421	18	514
McLeod, William J., and G. H. Cormack, Rockford, Ill. Water cut-off.....	233,943	Nov. 2	133	36	18	1009
McLeod, William S., Kingsville, Ontario, Canada. Pump.....	226,093	Mar. 30	1333	376	17	724
McLoughlin, John C., New York, and A. W. Almquist, Brooklyn, assignors to Devlin & Co., New York, N. Y. Cloth-shrinking apparatus.....	228,093	May 25	1180	336	17	1201
McMahon, James H., administrator. (See Fortier and Wyman.)						
McMaken, Joseph J. (See See, James W., assignor.)						
McMann, Eleanor A., Cleveland, Ohio. Guard for sleeping-car berths.....	223,527	Jan. 13	393	105	17	82
McMann, Eleanor A., Cleveland, Ohio. Safeguard for sleeping-berths.....	229,833	July 13	385	106	18	73
McMann, Eleanor A., Cleveland, Ohio. Guard for sleeping-car berths.....	229,834	July 13	385	106	18	73
McMann, Robert M., and H. A. Barnard, Moline, Ill. Steam-trap.....	230,080	July 13	603	{ 167 168 }	18	107
McManns, Richard, Boston, Mass. Oar.....	230,314	July 20	946	269	18	170
McMaster, David M., Bath, N. Y. Apparatus for removing snow from railways.....	229,266	June 29	1328	365	17	1460
McMaster, Samuel C., Malvern, Ohio. Attachment for middlings-purifiers.....	230,485	July 27	1190	535	18	216
McMillan, James, <i>et al.</i> (See Fontaine, Eugene, assignor.)						
McMullen, George W., Chicago, Ill. Torpedo-boat.....	227,637	May 18	634	182	17	1104
McMullen, Robert, Meadville, Pa. Drill-jar. (Reissue).....	9,072	Feb. 10	612	177	17	324
McMurray, Albert K., Ballston, N. Y. Apparatus for collecting natural mineral water and charging liquids with nature's carbonic-acid gas.....	227,698	May 18	709	201	17	1115
McMurtrie, William, <i>et al.</i> (See Sutton, Lyman W., Jr., assignor.)						
McMurtry, John, and P. Carroll, Lexington, Ky. Seed-cleaner.....	230,143	July 20	749	208	18	140
McMyler, John, Cleveland, Ohio. Derrick.....	234,313	Nov. 9	594	162	18	1094
McNair, James E., Webb City, Mo. Pigeon-hole bottom.....	230,486	July 27	1192	335	18	217

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McNair, Robert H., Elsau, Ill. Cog-gearing.....	232,612	Sept. 28	889	246	18	693
McNair, William L., Allegheny, Pa. Open-hearth furnace.....	229,443	June 29	1541	{ 424 425 }	17	1459
McNally, John E., <i>et al.</i> (See Robinson, James B., assignor.)						
McNary, William, Bryan, Ohio. Clamp for mold-boards.....	233,868	Nov. 2	49	14	18	995
McNaught, William. (See Perkins and McNaught.)						
McNaughten, Samuel S. (See Burns, Peter, assignor.)						
McNeal, John W., Roundhead, Ohio. Feeding-trough.....	224,206	Feb. 3	268	77	17	248
McNeill, Solomon, <i>et al.</i> (See Gail, Daniel H., assignor.)						
McNeill, William H. (See Gastard, Victor, assignor.)						
McNew, Scott, Lock Spring, Ind. Apple parer and corer.....	227,912	May 25	971	278	17	1167
McNiel, Elias H., Groton, N. Y. Steam-boiler and furnace.....	225,625	Mar. 16	760	224	17	609
McNuch, W. R. (See Hecutt, Francis M., assignor.)						
McNiven, Daniel, <i>et al.</i> (See Campbell, Duncan H., assignor.)						
McNorton, John T., Florence, Tex. Plow-carriage.....	235,692	Dec. 21	783	{ 220 221 }	18	1427
McPherson, James A., Brunswick, N. Y. Torch. (Reissue).....	9,357	Aug. 24	1207	337	18	462
McPherson, James R., assignor of one-half interest to F. N. Davis, Beloit, Wis. Hydraulic elevator.....	225,294	Mar. 9	379	111	17	532
McPherson, James R., Beloit, Wis. Combined steam and hydraulic elevator.....	225,851	Mar. 23	1026	296	17	662
McPherson, John H., Xenia, Ohio. Tooth for grain-drills.....	232,199	Sept. 14	383	106	18	595
McQuilkin, James H., Cambridge, Mass. Banjo.....	226,621	Apr. 20	573	160	17	864
McSherry, Daniel E., Dayton, Ohio. Hoe and shovel for grain-drills.....	232,200	Sept. 14	496	138	18	615
McSherry, Washington J., Greenville, Ohio. Air-heater for self-feeding stoves.....	232,289	Sept. 14	495	138	18	614
McWatters, Thomas, Washington, D. C. Shoe and hame fastener.....	235,271	Dec. 7	253	70	18	1323
McWhorter, A. L., <i>et al.</i> (See Donaldson, Samuel, assignor.)						
McWhorter, Henry E., Blooming Grove, Ind. Portable fence.....	230,031	July 13	605	168	18	108
McWilliam, Charles, Georgeville, Quebec, assignor to T. B. Rider, Fitch Bay, Canada. Safety attachment for steam-boilers.....	229,160	June 22	1214	332	17	1436
McWilliams, John, Providence, R. I., assignor to McWilliams Manufacturing Company. Die-holder for screw-presses. (Reissue).....	9,123	Mar. 23	1091	311	17	673
McWilliams Manufacturing Company. (See McWilliams, John, assignor.) (Reissue.)						
Mead, Albert G., assignor of one-half interest to M. A. Kent, Boston, Mass. Spring glove or garment fastener.....	227,440	May 11	410	119	17	1055
Meaker, John W., Chicago, Ill. Coin pocket-book.....	225,993	Mar. 30	1217	344	17	706
Means, Charles J., Boston, Mass. Electric signal for railways.....	234,315	Nov. 9	596	162	18	1094
Means, Charles J., Boston, Mass. Electric bell.....	234,316	Nov. 9	598	163	18	1094
Means, William A., Stroud's Cross-Roads, Ga. Horse-power.....	227,282	May 4	218	64	17	1014
Mearns, Andrew, assignor to W. Bowman, S. A. Day, and T. J. Barkley, Tolesborough, and H. C. Barkley, Maysville, Ky. Churn.....	229,729	July 6	251	70	18	45
Mears, J. Howell, Philadelphia, Pa. Chlorinating ores. (Reissue).....	9,203	May 18	910	.....	17	1147
Mecay, Samuel P., Killbuck, Ohio. Churn.....	223,599	Jan. 13	476	129	17	96
Mechanical Organette Company. (See Kelly, George B., assignor.)						
Medary, Oscar, Cincinnati, Ohio. Curling-iron.....	229,835	July 13	386	107	18	73
Meech, Harrison B., Chatham Village, N. Y. Apparatus for dredging and separating gold, &c.....	227,986	May 25	1062	302	17	1182
Meech, Harrison B., Chatham Village, N. Y. Apparatus for dredging and separating gold.....	227,988	May 25	1066	303	17	1182
Meehan, James, Newport, Ky., and J. Kinsey, Cincinnati, Ohio. Rail-joint.....	230,643	Aug. 3	58	16	18	256
Meeker, George E., and E. R. Fisher, West Meriden, Conn. Clothes-prop.....	230,315	July 20	946	269	18	170
Meeker, John G., Danbury, Conn. Machine for hardening and felting hat-bodies and other fabrics.....	226,336	Apr. 6	214	62	17	785
Mefford, David M., Toledo, Ohio. Preserving fruits.....	226,094	Mar. 30	1335	.....	17	724
Megill, Edward L., Brooklyn, N. Y. Lighting device.....	227,987	May 25	1063	302	17	1182
Megill, Henry F., Brooklyn, N. Y. Percussion-strip.....	227,560	May 11	541	156	17	1078
Mehling, Philip A., Jersey City Heights, N. J. Package of pencils.....	224,458	Feb. 10	559	160	17	314
Mehmel, Friedrich A., Stralsund, Prussia, Germany. Organ-action.....	224,457	Feb. 10	558	160	17	314
Meier & Co., Adolphus. (See Heine, Hermann, assignor.)						
Meier, Edward D., St. Louis, Mo. Hydraulic joint.....	228,209	June 1	53	17	17	1236
Meier, Edward D., St. Louis, Mo. Balanced valve.....	228,210	June 1	53	17	17	1236
Meier, Edward D., St. Louis, Mo. Hydraulic multiplier.....	228,771	June 15	763	209	17	1363
Meigher, James D., assignor of one-half interest to J. A. Contant, Titusville, Pa. Still for refining petroleum.....	224,301	Feb. 10	382	108	17	286
Meigs, Carlos D., Altona, N. Y., assignor to E. B. Rich, South Boston, Mass. Log-conveyer for saw-mills.....	223,936	Jan. 27	897	238	17	182
Meigs, George W. (See Willson and Meigs.)						
Meigs, George W. (See Willson and Meigs.) (Reissue.)						
Meigs, Montgomery C., Washington, D. C. Reflector.....	231,600	Aug. 24	1156	323	18	454
Meigs, Montgomery C., Washington, D. C. Reflector.....	231,601	Aug. 24	1156	323	18	454
Meigs, Montgomery C., Washington, D. C. Reflector.....	231,602	Aug. 24	1157	{ 323 324 }	18	454
Meikle, Thomas, Louisville, Ky. Plow.....	234,920	Nov. 30	1375	370	18	1244
Melcher, Charles G. (See Bearup, Henry I., assignor.)						
Melchisedeck, Peter. (See Herbert and Dougherty, assignors.)						
Melendy, Bryant H., Battle Creek, Mich. Key-ring.....	225,626	Mar. 16	761	224	17	609
Mell, James A., assignor of one-half interest to C. A. Chappell, Moline, Mich. Wrench.....	228,827	June 15	838	229	17	1373
Mell, James A., and W. Wortenhoe, Moline, Mich. Wrench.....	231,831	Aug. 31	1436	404	18	504
Melling, John W., Birkett Bank, Wigan, county of Lancaster, England. Safety-valve.....	235,889	Dec. 28	1035	286	18	1476
Mellinger, Christian K., and J. W. Anderson, Lancaster, Pa. Jump-seat for vehicles.....	231,438	Aug. 24	972	274	18	425
Mellinger, Christian K., assignor to S. G. Flagg, Philadelphia, and J. W. Anderson, Lancaster, Pa. Shifting seat for carriages. (Reissue).....	9,520	Dec. 28	1343	368	18	1527
Memery, Tom O., Key West, Fla. Hinge for awning-blinds.....	223,937	Jan. 27	897	238	17	182
Memery, Tom O., Key West, Fla. Dress-guard.....	230,032	July 13	606	168	18	108
Menaar, Nicholas A., assignor to M. E. Barber, Buffalo, N. Y. Tea-kettle.....	226,668	Apr. 20	628	175	17	872
Menahan, John, New York, N. Y. Pocket-book fastening.....	234,314	Nov. 9	595	162	18	1094
Mendel, Henry M. (See Leidersdorf and Mendel.)						
Mendenhall, Junius C., Plainfield, Ind. Gate.....	224,100	Feb. 3	151	43	17	228
Mendham, William. (See Chambers and Mendham.)						
Mendleson, Aaron, Albany, N. Y. Coated caustic-alkali ball.....	229,161	June 22	1215	.....	17	1436
Menge, Joseph, Point Michel, La. Dredging-machine.....	229,730	July 6	252	70	18	45
Mensch, Barsheba, Philadelphia, Pa. Strainer for privy-wells.....	228,661	June 8	600	160	17	1329
Menzies, William J., St. Helens, England. Manufacture of sulphate of soda.....	224,101	Feb. 3	152	.....	17	228
Menzies, William J., St. Helens, England. Manufacture of bicarbonate of soda.....	227,032	Apr. 27	1062	.....	17	954
Menzies, William J., St. Helens, England. Manufacture of bicarbonate of soda.....	227,561	May 11	542	.....	17	1078
Mercer, Edward, Atlanta, Ga. Cotton-press.....	235,272	Dec. 7	254	70, 71	18	1323

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Mercer, Evan A., assignor of one-half interest to T. B. Mercer, Christiana, Pa. Nut-lock.	225,713	Mar. 23	872	255	17	637
Mercer, S. B. (See Clay, Moses W., assignor.)						
Mercer, Taylor B. (See Mercer, Evan A., assignor.)						
Mercer, William, assignor of one-half interest to A. J. Steinman, Lancaster, Pa. Turbine water-wheel.	223,236	Jan. 6	34	8	17	8
Mercier, Edward, Springfield, Mass. Extinguisher.	226,095	Mar. 30	1336	376	17	724
Mercier, John, Detroit, Mich. Cider-mill.	231,439	Aug. 24	973	274	18	425
Meredith, James P., and J. S. Lyon, Augusta, Ga. Railway-switch.	224,460	Feb. 10	560	161	17	315
Meredith, John H., Snrattsville, Md. Car-coupling.	224,599	Feb. 17	734	208	17	345
Meriden Silver Plate Company. (See Mackay, William R., assignor.)						
Meriden Silver Plate Company. (See Osborn, Henry E., assignor.)						
Merine, John C., assignor of one-half interest to L. P. Swayne, Kansas City, Mo. Fruit-picker.	224,936	Feb. 24	1129	322	17	435
Merritt, Richmond C., assignor of two-thirds to J. E. Jayne, De Witt, Mich. Plow.	235,639	Dec. 21	720	204	18	1416
Merritte, Amand, Rouen, France. Door-check.	224,940	Feb. 24	1132	323	17	435
Merklen, Martin, New York, N. Y. Chair seat and back.	228,662	June 8	601	160	17	1329
Merrell, Frederick A., Rome, N. Y. Show-box.	226,182	Apr. 6	43	11	17	753
Merriam, Charles R., assignor of one-half interest to L. Smith, Dover, Del. Soldering-machine.	229,546	July 6	49	13	18	15
Merriam, Jane, Milwaukee, Wis. Covering for steam-pipes, &c.	234,417	Nov. 16	739	200	18	1127
Merriam, J. B. (See Frasc, Herman, assignor.)						
Merriam, Truman, Milwaukee, Wis. Covering for steam-boilers.	230,033	July 13	606	168	18	108
Merriam, Truman, Milwaukee, Wis. Covering for boilers.	231,832	Aug. 31	1436	404	18	504
Merriam, Arthur L. (See Michener, William R., assignor.)						
Merrick, Clinton, Pecatonica, Ill. Spring bed-bottom.	223,428	Jan. 6	247	65	17	45
Merrick, J. Vaughan, Philadelphia, Pa. Journal-box.	232,049	Sept. 7	208	56, 57	18	559
Merrick, William H., Philadelphia, Pa. Device for lubricating crank-pins.	236,056	Dec. 28	1237	341	18	1510
Merrihew, Joseph R., Lynn, Mass. Coffee scourer and cleaner.	228,094	May 25	1182	336	17	1201
Merrill, Alfred K. (See Goldsmith and Merrill.)						
Merrill & Bacon. (See Parke, Amos S., assignor.)						
Merrill, Charles A., Battle Creek, Mich. Spoke-driving machine.	224,026	Feb. 3	62	19	17	214
Merrill, Edward R., New York, N. Y. Vehicle-seat spring.	229,899	July 13	455	126	18	84
Merrill, George P., assignor of three-fourths to P. Dowling, C. H. Coy, and N. W. Dyer, Toledo, Ohio. Device for unloading cars.	234,883	Nov. 30	1331	358	18	1237
Merrill, George W., Portland, Me. Vehicle-seat.	227,913	May 25	972	278	17	1168
Merrill, Joshua. (See Woodbury, Merrill, Patten, and Woodbury.)						
Merrill, Orlando, Courtland, Ala. Lamp-burner.	224,459	Feb. 10	559	161	17	315
Merrill, Orson E., Beloit, Wis., assignor to Hydraulic Elevator Company. Hydraulic elevator.	235,693	Dec. 21	784	221	18	1427
Merrill, Rufus M. (See Stocum and Merrill.)						
Merrill, Simeon H. (See Stith, Henry T., assignor.)						
Merriman, Alanson H., West Meriden, Conn. Pitman.	224,207	Feb. 3	269	78	17	248
Merriman, Julius E., assignor to Foster, Merriam & Co., West Meriden, Conn. Drawer-pull.	234,139	Nov. 9	384	105	18	1057
Merritt, Aaron J., Greensburg, Ohio. Drag-sawing machine.	226,533	Apr. 13	456	128	17	834
Merritt, Benjamin, Newton, assignor of one-half interest to M. L. White, Boston, Mass. Balance-wheel-connecting device.	225,068	Mar. 2	110	31	17	475
Merritt, Benjamin, Newton, assignor of one-half interest to M. L. White, Boston, Mass. Revolving fire-arm.	233,363	Oct. 19	720	197	18	872
Merritt, George. (See Reinecke, Herman, assignor.)						
Merritt, Henry W., Somerville, assignor to W. H. Ireland, Boston, Mass. Gas-burner.	229,444	June 29	1543	425	17	1489
Merritt, Isaac E., Lockport, N. Y. Mowing-machine.	233,426	Oct. 19	798	220	18	885
Merritt, James D. (See Wright, Miles S., assignor.)						
Merritt, James D., New York, N. Y., assignor of one-half to C. Fones, Bridgeport, Conn. Car-axle-box oiler.	236,057	Dec. 28	1238	342	18	1510
Morrow, Moses H. (See Clough, Aaron S., assignor.)						
Merry, Charles H., St. Louis, Mo. Device for handling and shipping cotton.	230,144	July 20	750	209 } 210 }	18	140
Merry, Eugene, Glens Falls, N. Y. Animal-trap.	231,833	Aug. 31	1437	404	18	505
Mersereau, Herman C., et al. (See Paul, George D., assignor.)						
Mershon, James R. (See Swisher and Mershon.)						
Mersick, Charles S. (See Beecher, Henry M., assignor.)						
Mertz, Carl W., Republic, Mich. Micrometer watch-regulator.	229,162	June 22	1215	332	17	1437
Mertz, Georg F., Mitau, Russia. Spring-catch for watches.	234,999	Nov. 30	1472	396	18	1260
Mervesp, John J., Philadelphia, Pa., assignor to C. M. Talcott and W. H. Post, Hartford, A. W. C. Williams, Brookfield, and G. J. Capewell, Cheshire, Conn. Horseshoe-nail.	226,240	Apr. 6	108	29	17	765
Messick, William L., Carter's Creek, Va. Oyster-tongs.	225,153	Mar. 2	198	56	17	490
Metallic Heel Stiffener Company. (See Van Wormer, William H., assignor.) (Reissue.)						
Metallic Heel Stiffening Company. (See Bailey and Weage, assignors.)						
Metcalf, George, Leland, assignor to himself and S. Culver, Sandwich, Ill. Hopper for feed-grinders.	226,337	Apr. 6	215	62	17	785
Metcalf, Henry B., et al. (See Campbell, Duncan H., assignor.)						
Metcalf, John S., Indianapolis, Ind. Scoop-shovel for unloading cars.	225,531	Mar. 16	654	191	17	589
Metcalf, Marquis L., Willimantic, Conn. Tube-cleaner.	235,694	Dec. 21	785	221	18	1427
Metcalf, William, Pittsburg, Pa. Metallurgic furnace.	227,120	May 4	33	10	17	984
Methlow & Co., Ed. (See Düdeck, Hugo, assignor.)						
Metropolitan Manufacturing Company. (See Roth, John G., assignor.) (Reissue.)						
Mettam, Charles, New York, N. Y. Fireproofing iron columns.	230,316	July 20	947	269	18	170
Mettler, Isaac S. (See Schuyler, Isaac S., assignor.)						
Metzger, George J., Buffalo, N. Y. Sash-lock.	227,562	May 11	543	156	17	1078
Metzger, John A. J., et al. (See Officer, William E., assignor.)						
Metzger, Sigmund, Mannheim, Germany. Staining and glazing vegetable fiber, &c.	231,077	Aug. 10	555	157	18	344
Metzler, Charles, New York, N. Y. Machine for sizing muslin.	231,078	Aug. 10	555	157	18	344
Metzler, William, assignor to J. Baizley, Philadelphia, Pa. Gaff-topsail-sheet chock.	224,027	Feb. 3	63	19	17	214
Mey, Amalia. (See Mey and Stark, assignors.)						
Mey, Frederic H. C., and M. J. Stark, assignors to A. Mey, Buffalo, N. Y. Drier and cooler for grain, &c.	226,669	Apr. 20	628	175	17	872
Meyer, Abram. (See Osselin and Meyer.)						
Meyer, Arthur H., St. Louis, Mo. Apparatus for and process of separating gold, silver, and copper from lead.	234,884	Nov. 30	1332	359	18	1237
Meyer, Benjamin F. (See Furbush and Meyer.)						
Meyer, Bernhard C., Bethalto, Ill. Grain-meter.	228,095	May 25	1183	336	17	1201
Meyer, Christopher. (See Sanford, George H., assignor.)						
Meyer & Co., Henry C. (See Doran, Patrick, assignor.)						
Meyer & Co., Henry C. (See Hellyer, Samuel S., assignor.)						
Meyer, Francis E., New York, N. Y. Gum-coating.	223,237	Jan. 6	35	8	17	9



## Alphabetical list of patentees—Continued.

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Meyer, Francis E., New York, N. Y. Lamp-reflector .....	226,412	Apr. 13	304	88	17	811
Meyer, Francis E., New York, N. Y. Imitation of mosaic for jewelry .....	227,377	May 11	347	101	17	1045
Meyer, Francis E., New York, N. Y. Real or imitation precious stones, paste, or composition of glass .....	229,328	June 29	1414	387	17	1471
Meyer, Francis E., New York, N. Y. Treating real or imitation precious stones, &c. ....	233,364	Oct. 19	721	197	18	872
Meyer, Joseph A., Rochester, N. Y. Burial-casket .....	227,809	May 18	833	236	17	1134
Meyer, Leopold. (See Holz and Meyer.)						
Meyers, Daniel, <i>et al.</i> (See Weir, Robert H., assignor.)						
Meyers, John J., Buffalo, N. Y. Conveyor for brick-yards .....	234,885	Nov. 30	1333	359	18	1237
Meylan, Charles H., New York, N. Y. Chronograph-watch .....	235,794	Dec. 21	899	251	18	1446
Meylert, Asa P., Brooklyn, N. Y. Air-heater for fruit-driers .....	226,183	Apr. 6	44	11	17	753
Michael, Abel, Darke, Ohio. Corn-plow .....	229,900	July 13	456	126	18	84
Michaelis, Victor, Rellingengrund, Luxemburg. Apparatus for manufacturing vinegar .....	227,564	May 11	546	157	17	1079
Michaels, Emil, Chicago, Ill. Rocking-chair .....	229,733	July 6	257	72	18	46
Michel, Charles, La Crosse, Wis. Bottle-washing machine .....	225,231	Mar. 9	295	84	17	520
Michel, Leopold, and C. Schirmeister, Brooklyn, N. Y. Ash-box .....	231,073	Aug. 10	547	155	18	342
Michels, Peter. (See Malone, Edward J., assignor.)						
Michener, Ames J., <i>et al.</i> (See Brassington, Walter J., assignor.)						
Michener, William R., assignor to Ames Iron Works, Oswego, N. Y. Steam-boiler .....	224,836	Feb. 24	1022	291	17	417
Michener, William R., assignor to Ames Iron Works, Oswego, N. Y. Portable steam-boiler ..	225,069	Mar. 2	111	31	17	475
Michener, William R., assignor to Ames Iron Works, Oswego, N. Y. Portable steam-boiler. (Reissue) .....	9,149	Apr. 13	510	143	17	842
Michener, William R., Oswego, assignor to A. L. Merrian, New York, N. Y. Steam-governor ..	228,772	June 15	764	210	17	1363
Michigan Carpet Sweeper Company. (See Drew, Walter J., assignor.)						
Michigan Carpet Sweeper Manufacturing Company. (See Drew, Walter J., assignor.)						
Michigan Store Company. (See Herrick, Wipfler, and Roberts, assignors.)						
Michigan Store Company. (See Roberts, Theodor H., assignor.)						
Mickle, J. M., <i>et al.</i> (See Smith, Robert P., assignor.)						
Middleby, Joseph. (See Bate, Wallace H., assignor.)						
Middleton, Allen. (See Hoyt, David, assignor.)						
Middleton, Allen. (See Watson, Charles S., assignor.)						
Middleton, Allen, Philadelphia, Pa. Car-spring .....	229,164	June 22	1217	333	17	1437
Middleton, Allen, Philadelphia, Pa. Coupling-link for railway-cars .....	229,731	July 6	254	71	18	46
Middleton, Daniel E., Piper City, Ill. Apparatus for holding horses .....	225,715	Mar. 23	875	256	17	638
Miehle, Joseph, <i>et al.</i> (See Wurzer, Joseph, assignor.)						
Mier, Samuel. (See Johnson, Alfred, assignor.)						
Miesch, John, Paterson, N. J., assignor to G. F. Keck and G. Fischer, New York, N. Y. Jacquard machine .....	225,852	Mar. 23	1029	296	17	662
Milbank, George, Chillicothe, Mo. Mode of and apparatus for reducing grain and simultaneously purifying the products thereof .....	229,445	June 29	1544	425 426	17	1490
Milbank, Isaac M., Greenfield Hill, Conn. Breech-loading fire-arm. (Reissue) .....	9,405	Oct. 12	642	178	18	852
Mild, William, Hamilton, Ohio. Machine for cutting and grating vegetables .....	226,096	Mar. 30	1337	377	17	724
Miles, Bradford S., Gray's Summit, Mo. Stump-puller .....	227,914	May 25	973	279	17	1168
Miles, Edward C. (See Arnold, George M., assignor.)						
Miles, Enos P., Clay Centre, Kans. Evaporator .....	232,200	Sept. 14	384	107	18	595
Miles, Gideon, assignor of one-half interest to J. E. Reeves, St. Joseph, Mo. Carriage-top rest .....	228,211	June 1	56	18	17	1236
Miles, John, Cheshire, Conn. Game apparatus .....	225,407	Mar. 9	506	146	17	554
Miles, Lucius E., Fulton, Wis. Hay elevator and carrier .....	233,633	Oct. 26	1057	294	18	938
Miles, Purches, Brooklyn, N. Y. Clothes-hook .....	225,942	Mar. 30	1151	327	17	695
Miles, Purches, Brooklyn, N. Y. Apparatus for bottling or canning substances .....	228,828	June 15	839	229	17	1373
Miles, Purches, Brooklyn, N. Y. Bottle-stopper .....	232,613	Sept. 28	890	246	18	693
Miles, S. P., <i>et al.</i> (See Thompson, William M., Jr., assignor.)						
Miles, William A., Cepake Iron Works, N. Y. Charcoal-kiln .....	225,296	Mar. 9	382	112	17	533
Miles, William A., Cepake Iron Works, N. Y. Charcoal-kiln .....	225,297	Mar. 9	383	112	17	533
Miles, William B. (See Chapman and Miles.)						
Millette, Thomas, Three Rivers, Quebec, Canada. Canal-lock .....	227,563	May 11	544	157	17	1079
Millard, Andrew J., Sioux City, Iowa. Box-fastener .....	230,799	Aug. 3	232	67	18	284
Millard, Martin S., Kansas City, Mo. Pump .....	227,177	May 4	103	30	17	995
Millard, Sterling A., Clayville, N. Y. Scythe-blade .....	227,033	Apr. 27	1063	294	17	954
Millen, George H., assignor to E. B. Eddy, Hull, Quebec, Canada. Wash-board .....	223,600	Jan. 13	477	129	17	96
Millen, George H., assignor to E. B. Eddy, Hull, Quebec, Canada. Machine for heading friction-matches .....	223,601	Jan. 13	478	129	17	96
Miller, Andrew F., Cearfoss, Md. Sliding gate .....	225,295	Mar. 9	382	111	17	533
Miller, Arthur. (See Kimball, Hiram A., assignor.)						
Miller, Asa F., and R. E. Gross, New York, N. Y.; said Gross assignor to said Miller. Apparatus for rendering fat .....	229,446	June 29	1548	426	17	1490
Miller, Augustine B., Saumsville, Va. Car-coupling .....	233,600	Oct. 5	242	67	18	778
Miller, Cassius M. (See Miller, Edgar E., assignor.)						
Miller, Cassius M., assignor of one-half interest to C. Aultman & Co., Canton, Ohio. Traction-engine .....	227,441	May 11	411	119	17	1055
Miller, Charles F. A., Ontarioville, Ill. Weeding-machine .....	231,676	Aug. 31	1250	351	18	475
Miller, Charles H., assignor to Beetz Manufacturing Company, (limited,) Erie, Pa. Washing-machine .....	225,714	Mar. 23	873	256	17	637
Miller, Charles H., assignor to Beetz Manufacturing Company, (limited,) Erie, Pa. Stepladder .....	230,798	Aug. 3	231	67	18	284
Miller, Charles H., assignor to Beetz Manufacturing Company, (limited,) Erie, Pa. Wringing-machine .....	235,096	Dec. 7	38	12	18	1287
Miller, Charles R. (See Harrison, Jonathan W., assignor.) (Reissue.)						
Miller & Co., Edward. (See Langston, Thomas, assignor.)						
Miller & Co., Edward. (See Perkins, Russell B., assignor.)						
Miller, Daniel R., Denver, Colo. Mail-bag fastening .....	223,857	Jan. 27	798	214	17	167
Miller, David, Mechanicsburg, Pa. Apparatus for cleaning and dampening grain .....	229,901	July 13	457	126	18	85
Miller, David K., Knoxville, (Pittsburg P. O.) assignor to himself and J. H. Reed, Pittsburg, Pa. Sliding door .....	235,097	Dec. 7	39	12	18	1287
Miller, Du Brul & Peters Manufacturing Company. (See Du Brul, Napoleon, assignor.)						
Miller, Edgar E., assignor of one-half interest to C. M. Miller, Canton, Ohio. Detachable bracket for steam-pumps .....	231,440	Aug. 24	974	274	18	425
Miller, Edgar E., assignor of one-half interest to C. M. Miller, Canton, Ohio. Steam-pump ..	234,601	Nov. 16	973	259	18	1165
Miller, Edward F., New York, N. Y. Fastening device .....	228,373	June 1	244	68	17	1266
Miller, Eli. (See Mallett, Sidney E., assignor.)						
Miller, Elias. (See Clearwaters, James A., assignor.)						
Miller, Ephraim, assignor of one-half interest to C. S. Frances, Spring City, Pa. Thill-coupling jack .....	223,940	Jan. 27	900	239	17	182

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Miller, Ephraim, assignor of one-half interest to C. S. Francis, Spring City, Pa. Wrench.	226,582	Apr. 13	502	142	17	841
Miller, Fredrick C., Newport, Ky. Cigar-packing press.	224,208	Feb. 3	270	78	17	248
Miller, Fredrick C., Newport, Ky., and H. C. Peters, New York, N. Y. Cigar-mold.	234,796	Nov. 23	1217	329	18	1211
Miller, Fredrick C., Newport, Ky., assignor to H. C. Peters, New York, N. Y. Cigar-cutter.	234,797	Nov. 23	1219	329	18	1211
Miller, George, and J. Reichert, assignors, by mesne assignments, to Passenger Fare Enumerator and Classifier Company, Philadelphia, Pa. Alarm-counter. (Reissue.)	9,177	Apr. 27	1146	313	17	966
Miller, George A., assignor of one-half interest to R. Y. Flinn, Des Moines, Iowa. Ink-roller attachment for printing-machines.	232,744	Sept. 28	1040	285	18	719
Miller, George M. (See Miller, William, assignor.)						
Miller, George S., Dayton, Ohio. Leather-fastener.	223,939	Jan. 27	899	239	17	153
Miller, George W., Canton, Ohio. Vehicle-hub band.	228,097	May 25	1185	337	17	1201
Miller, George W., Hamilton, Ohio. Rotary engine.	230,886	Aug. 10	347	100 101	18	311
Miller, Henry A., Findlay, Ohio. Combined thrashing-machine and clover-huller.	230,562	July 27	1269	358	18	230
Miller, Herman, New York, N. Y. Machine for seaming cans.	232,535	Sept. 21	797	221	18	671
Miller, Herman, New York, N. Y. Flaxing apparatus.	234,195	Nov. 9	455	123	18	1070
Miller, Herman, New York, N. Y. Apparatus for handling cans.	235,002	Nov. 30	1476	397	18	1261
Miller, Hiram I. (See Calhoun and Miller.)						
Miller, Horace M., Sedalia, Mo. Pigeon-trap.	227,638	May 18	636	182	17	1104
Miller, Jacob. (See Hawk and Miller.)						
Miller, John A., et al. (See Everitt and Avery, assignors.) (Reissue.)						
Miller, John C., Louisville, Ky. Steam-engine.	228,374	June 1	245	69	17	1266
Miller, John C., Louisville, Ky. Steam-generator.	229,165	June 22	1218	333	17	1437
Miller, John C., Louisville, Ky. Chair-seating machine.	229,734	July 6	258	72	18	46
Miller, John C., assignor to Long & Brother Chair Company, Louisville, Ky. Chair-seat loom.	229,732	July 6	255	71	18	46
Miller, John F., assignor to D. Risher and D. R. McClure, Pittsburg, Pa. Spring-link for draft-tugs.	223,370	Jan. 6	183	48	17	33
Miller, John F., assignor to D. Risher, Pittsburg, Pa. Spring draft or tug link.	224,210	Feb. 3	271	79	17	249
Miller, John M., Cincinnati, Ohio. Vehicle-spring.	227,915	May 25	974	279	17	1168
Miller, John M., Huntsville, Ill. Carpet-stretcher.	228,663	June 8	601	161	17	1329
Miller, John W., Whitesborough, N. Y. Process of and apparatus for making ice.	230,318	July 20	950	270	18	170
Miller, Joseph A., Jr. (See Sparrow, Andrew J., assignor.) (Reissue.)						
Miller, Joseph C., Malden, Mass. Self-closing faucet.	228,917	June 15	934	254	17	1387
Miller, Lathon, and H. Lighthall, Chelsea, Mich. Plow.	231,441	Aug. 24	974	275	18	426
Miller, Lebbeus B., and P. Diehl, Elizabeth, N. J., assignors to Singer Manufacturing Company of New Jersey. Band-wheel bearing for sewing-machines.	224,710	Feb. 17	848	242	17	374
Miller, Lebbeus B., and P. Diehl, Elizabeth, N. J., assignors to Singer Manufacturing Company of New Jersey. Sewing-machine.	229,629	July 6	134	37, 38	18	29
Miller, Lebbeus B., and P. Diehl, Elizabeth, N. J., assignors to Singer Manufacturing Company of New Jersey. Sewing-machine shuttle.	233,789	Oct. 26	1227	341	18	967
Miller, Lewis. (See Kramer and Miller.)						
Miller, Lewis, assignor of one-half interest to A. W. Kramer, Oil City, Pa. Wagon-jack.	224,461	Feb. 10	561	161	17	315
Miller, Lewis, Philadelphia, Pa. Bale-band fastening.	235,273	Dec. 7	254	71	18	1323
Miller, Lewis, Philadelphia, Pa. Bale-band tightener.	235,550	Dec. 14	609	173 174	18	1391
Miller, Michael. (See Isch, Stephen, assignor.)						
Miller, Nicholas, assignor to H. W. Scholler, Edinburg, Ind. Press for extracting water from starch.	235,001	Nov. 30	1475	397	18	1261
Miller, Noah J., Collinsville, Tex. Mechanical motor.	228,098	May 25	1187	337	17	1202
Miller, Peter. (See Brown and Miller.)						
Miller, Philip, Norwich, Conn. Machine for pressing cloth.	228,375	June 1	246	69	17	1266
Miller, Philip S., San Francisco, Cal. Harness.	226,241	Apr. 6	109	30	17	765
Miller, Robert E. (See Whitmore, Joseph M., assignor.)						
Miller, Robert R., Plantsville, Conn. Apparatus for dressing axle-arms for wagons.	235,373	Dec. 14	389	107	18	1353
Miller, Rudolph A., assignor of one-half interest to C. Neynaber, Galveston, Tex. Whiffletree.	232,999	Oct. 5	242	67	18	778
Miller, Thomas. (See Gleason, Robert E., assignor.)						
Miller, Thomas, Wharton, Ohio. Harness-tree.	231,835	Aug. 31	1439	405	18	505
Miller, True A., Elmwood, Ill. Apparatus for washing and oiling vehicle-wheels.	227,121	May 4	34	10	17	984
Miller, Upton, Mount Morris, Ill. Washing-machine.	223,938	Jan. 27	898	238	17	182
Miller, Walter. (See Deacon and Miller.)						
Miller, Watson J., and H. Berry, Huntington, Conn. Porcelain-lined pitcher.	227,565	May 11	548	157	17	1079
Miller, William, assignor to himself and G. M. Miller, Boston, Mass. Self-leveling berth.	228,100	May 25	1188	337	17	1202
Miller, William, Boston, assignor of one-half interest to C. C. Sanderson, Dedham, Mass. Railway-switch.	227,639	May 18	637	183	17	1104
Miller, William, Boston, Mass. Metallic socket-bushing for lasts.	235,000	Nov. 30	1474	396	18	1261
Miller, William C., East Liverpool, Ohio. Heating-furnace.	231,442	Aug. 24	975	275	18	426
Miller, William D., Springfield, Ohio. Wheel-plow.	225,156	Mar. 2	199	56	17	490
Miller, William F. (See Keating, Jeremiah H., assignor.)						
Miller, William H. (See Bennett, John, assignor.)						
Miller, William H. (See Fairchild and Miller.)						
Miller, William H., Philadelphia, Pa. Mosquito-netting attachment.	230,457	July 27	1193	336	18	217
Miller, William J., assignor of one-half interest to J. M. Curtis, Detroit, Mich. Corset.	233,001	Oct. 5	243	67	18	778
Miller, William L. (See Thuston, Lycurgus, assignor.)						
Miller, William L., Cleveland, Ohio. Reversing and cut-off mechanism for steam-engines.	231,834	Aug. 31	1438	404	18	505
Miller, William P., Tipton, Mo. Nut-lock.	227,812	May 18	835	236	17	1134
Miller, William R., Baltimore, Md. Rubber boot and shoe.	227,811	May 18	835	236	17	1134
Miller, William R., Baltimore, Md. Last.	225,664	June 8	602	161	17	1330
Millers Falls Company. (See Goodell, Albert D., assignor.)						
Millers Falls Company. (See Stevens, Henry L., assignor.)						
Milliken, Alonzo, Brooklyn, N. Y. Button.	228,096	May 25	1185	336	17	1201
Milliken, Alonzo, Brooklyn, N. Y. Button.	234,684	Nov. 23	1087	292	18	1190
Milliken, George, Philadelphia, Pa. Machine for breaking flax, hemp, &c.	234,715	Nov. 23	1119	302	18	1195
Milliken, William H., assignor to Iron Telegraph Pole Company, San Francisco, Cal. Telegraph-pole.	232,360	Sept. 21	593	163	18	637
Milliman, Uriah, Palmyra, N. Y. Horse-boot.	235,447	Dec. 14	482	136	18	1370
Millington, Frank, and F. Watson, Hoosick Falls, N. Y. Waste-pipe cut-off and valve.	233,371	Jan. 6	184	48	17	34
Miller, Jackson C., Danville, Va. Tobacco-curing furnace. (Reissue.)	9,108	Mar. 2	257	72	17	501
Mills, Anson, U. S. Army. Loom for weaving cartridge-belt fabric.	236,058	Dec. 28	1239	342 343	18	1510
Mills, Anson, U. S. Army. Cartridge-belt.	236,059	Dec. 28	1243	343	18	1510
Mills, Clark W. (See Tyler, Charles D., assignor.)						

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Mills & Co. (See Binkard, Alfred, assignor.)						
Mills, E., <i>et al.</i> (See Patterson, William, assignor.)						
Mills, Edward, <i>et al.</i> (See Patterson, William H., assignor.)						
Mills, Emory W., Fishkill-on-the-Hudson, assignor of one-half interest to Fishkill Landing Machine Company, Fishkill Landing, N. Y. Portable engine	227,566	May 11	549	158	17	1079
Mills, George M., Philadelphia, Pa. Manufacture of candy whistles	229,163	June 22	1216	333	17	1437
Mills, George W., Vincennes, Ind. Weather-board gage	231,836	Aug. 31	1440	405	18	505
Mills, Jonathan, Milwaukee, Wis. Middlings-grinding mill	223,856	Jan. 27	796	213 214	17	167
Mills, Jonathan, Chicago, Ill. Reducing grain	233,536	Oct. 19	921		18	90
Mills, Mortimer B., and C. B. Rice, Chicago, Ill.; said Mills assignor to said Rice. Feed-cooker	232,101	Sept. 7	264	73	18	567
Mills, Remulo A. (See Colvin, Orson, assignor.)						
Mills & Son, William. (See Richardson, Frederick, assignor.)						
Mills, Willard F. (See Thomas and Mills.)						
Mills, Willard F., assignor to himself and J. J. Thomas, Wellington, Ohio. Music-rack	227,034	Apr. 27	1063	295	17	954
Millsap, Charles W., Rowayton, Conn. Music-holder	235,695	Dec. 21	786	221	18	1427
Milne, David F., West Newton, Mass. Governor	232,836	Oct. 5	52	16	18	747
Milne, George, and W. H. Gants, San Francisco, Cal. Water-closet	226,338	Apr. 6	215	62	17	785
Milne, George, and W. H. Gants, San Francisco, Cal. Valve for water-closets	231,967	Sept. 7	116	29	18	542
Milnor, Charles G., <i>et al.</i> (See Todd, James, assignor.) (Reissue.)						
Miltmore, J. H., assignor, by mesne assignments, to Adams & Westlake Manufacturing Company, Chicago, Ill. Lantern. (Reissue.)	9,422	Oct. 19	988	274	18	917
Milton, Nathaniel B. (See Hall and Milton.)						
Miner, Alphonse R. (See Burrell, Miner, and Bodge.)						
Miner, Jacob G., New York, N. Y. Street-lamp	228,265	June 1	132	37	17	1247
Miner, John W., Mount Pleasant, assignor to himself and W. B. Miner, Connellsville, Pa. Gage for building coke-ovens	223,372	Jan. 6	186	49	17	34
Miner, William B. (See Miner, John W., assignor.)						
Miner, William W., assignor to Globe Nail Company, Boston, Mass. Annealing nails	230,644	Aug. 3	59	17	18	256
Minetree, James, Petersburg, Va. Board for tobacco-mills	235,274	Dec. 7	255	71	18	1323
Minneapolis Grain Binder Company. (See Travis, Charles L., assignor.)						
Minneapolis Harvester Works. (See Jones and Owens, assignors.)						
Minogue, Denis, Chicago, Ill. Snap-hook	230,800	Aug. 3	233	67	18	284
Minor, Frank O., <i>et al.</i> (See Weiss, William, assignor.)						
Minton, Arza B., Philomath, Oreg. Gate	230,034	July 13	607	169	18	108
Minton, Charles, Chatham Village, N. Y. Station-indicator for railway-cars	220,050	June 22	1094	298	17	1418
Minton, Stephen F., <i>et al.</i> (See Custer, George, assignor.)						
Mintzer, Charles H. (See Hess, John M., assignor.)						
Mintzer, William H., Colton, Cal. Engineer's shoe	224,937	Feb. 24	1130	323	17	435
Mississippi Valley Transportation Company. (See Good, James, assignor.)						
Mitchell, Merit F., Ripon, Wis. Churn	234,418	Nov. 16	740	200	18	1127
Mitchell, Alexander, Everett, Mass. Cinder guard or deflector for railway-carriage windows	226,869	Apr. 27	870	242	17	923
Mitchell, Caleb W., Saratoga Springs, N. Y. Refrigerator bottle-rack	232,998	Oct. 5	241	66	18	778
Mitchell, Charles H., Chicago, Ill. Hatchway-door mechanism	235,795	Dec. 21	900	251	18	1447
Mitchell, Charles M., Waterbury, Conn., assignor to Rejall & Becker, New York, N. Y. Pipe mouth-piece	228,099	May 25	1188	337	17	1202
Mitchell, Francis L., St. Joseph, Mo. Washing-machine	229,547	July 6	50	13, 14	18	15
Mitchell, Francis L., St. Joseph, Mo. Fire-escape	233,788	Oct. 26	1226	341	18	967
Mitchell, Francis L., St. Joseph, Mo. Coloring and finishing photographs	233,944	Nov. 2	135		18	1009
Mitchell, Frank B., <i>et al.</i> (See McKay, Louis, assignor.)						
Mitchell, George E., Chelsea, Mass. Piston-rod packing	230,317	July 20	949	270	18	170
Mitchell, Henry, Paterson, N. J. Steam-trap	224,600	Feb. 17	735	208	17	354
Mitchell, James T., Monticello, N. Y. Folding chair	232,742	Sept. 28	1038	284	18	718
Mitchell, J. Henry, Philadelphia, Pa. Triturating-mill	223,651	Jan. 20	545	147	17	116
Mitchell, Jordan H., Eufaula, Ala. Bale-tie buckle	224,708	Feb. 17	847	241	17	374
Mitchell, Joseph R., San Francisco, Cal. Portable steam-boiler	231,443	Aug. 24	976	275	18	426
Mitchell, Samuel, Lima, N. Y. Vehicle-wheel hub	232,837	Oct. 5	53	16	18	747
Mitchell, Thomas. (See Bell, Thomas J., assignor.)						
Mitchell, Tom, Bradford, county of York, Great Britain. Spinning-machine	223,748	Jan. 20	649	174	17	133
Mitchell, Vance & Co. (See Smith, Edgar M., assignor.)						
Mitchell, William G., Brooklyn, N. Y. Car-axle box	224,209	Feb. 3	271	78	17	248
Mitchell, William G., New York, N. Y. Car-axle box	232,743	Sept. 28	1039	285	18	719
Mitchell, William H., <i>et al.</i> (See McKay, Louis, assignor.)						
Mitchell, William J., San Francisco, Cal. Paving-tile	224,938	Feb. 24	1131	323	17	435
Mitchell, William S., New Cumberland, Ohio. Nut-lock	227,810	May 18	834	236	17	1134
Mittendorf, Gustav A. New Braunfels, Tex. Saddle-tree fork	224,709	Feb. 17	847	241	17	374
Mix, Frank W., Terryville, Conn. Padlock	223,528	Jan. 13	393	105	17	82
Mix, Frank W., assignor to Eagle Lock Company, Terryville, Conn. Padlock	225,406	Mar. 9	505	146	17	553
Mix, Frank W., Terryville, Conn. Indicator-lock. (Reissue.)	9,462	Nov. 9	692	186	18	1110
Mixer, William M. (See De La Vergne and Mixer.)						
Moak, Charles S. (See Johnson and Moak.)						
Moeller, Charles F., Newark, N. J. Lantern	233,107	Oct. 12	389	107	18	808
Moeller, Jacob E., Centralia, Ill. Hame-tug	230,035	July 13	608	169	18	108
Moen, Gullik O. (See Little, John D., assignor.)						
Moenkedick, Theodore, Cincinnati, Ohio, assignor of one-half interest to C. Kaiper. Covington, Ky. Rocking-chair	227,122	May 4	35	10	17	984
Moerlein, George. (See Behlen, Charles, Jr., assignor.)						
Moffatt, Richard R., Brooklyn, assignor to Fuller Electrical Company, New York, N. Y. Electric lamp	230,801	Aug. 3	233	68	18	285
Moffet, John, New York, N. Y. Monkey-wrench	226,339	Apr. 6	217	63	17	785
Molby, Horace, Davisburg, Mich. Tenoning-machine	236,060	Dec. 28	1244	343	18	1511
Molecular Telephone Company. (See Lockwood and Bartlett, assignors.)						
Molera, Eusebius J., and J. C. Cebrían, San Francisco, Cal. Camera attachment	230,319	July 20	951	270	18	170
Molera, Eusebius J., and J. C. Cebrían, San Francisco, Cal. Microscope	230,320	July 20	952	270 271	18	171
Molera, Eusebius J., and J. C. Cebrían, San Francisco, Cal. Electric switch	230,321	July 20	953	271	18	171
Molera, Eusebius J., and J. C. Cebrían, San Francisco, Cal. Optical instrument	230,322	July 20	955	271	18	171
Molera, Eusebius J., and J. C. Cebrían, San Francisco, Cal. Boiler and condenser for vapor-engines	230,323	July 20	957	272	18	172
Molera, Eusebius J., and J. C. Cebrían, San Francisco, Cal. Photographic apparatus for reducing to a microscopic scale	230,324	July 20	959	272 273	18	172

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Möller, H. E., <i>et al.</i> (See Möller, John A., assignor.)						
Möller, John A., assignor to H. E. Möller, New York, and J. Brunnemer, Brooklyn, N. Y. Book-cover.....	230,036	July 13	609	169	18	108
Möller, Martin, Kollmar, Germany. Corn-grinding mill.....	232,536	Sept. 21	799	221	18	671
Mollet, Jacob, Liberty, Mo. Vise for holding saws.....	234,211	Feb. 3	272	79	17	249
Molloy, James F., West Haven, Conn. Buckle.....	231,603	Aug. 24	1158	324	18	454
Molloy, James F., West Haven, Conn. Buckle.....	236,061	Dec. 28	1245	344	18	1511
Moloney, John, Great Belt, Pa., assignor of one-fourth interest to C. I. O'Conner. Sand-pump-lever attachment.....	226,534	Apr. 13	456	129	17	834
Monaghan, Joseph, Brooklyn, N. Y. Fountain pen-holder.....	226,768	Apr. 20	731	204	17	890
Monarch, Martin V., Owensborough, Ky. Separator for the distillation of whisky.....	227,035	Apr. 27	1064	295	17	954
Monarch, Martin V., Owensborough, Ky. Fermenting-vat.....	232,746	Sept. 28	1042	285	18	719
Moncrief, Gideon E., Dupont, Ind. Washing-machine.....	228,667	June 8	604	162	17	1330
Moncuse, Elio, New York, N. Y. Fire-grate.....	228,376	June 1	246	70	17	1266
Monk, John H., Brooklyn, N. Y. Blind-slat adjuster.....	234,317	Nov. 9	599	163	18	1095
Monnier, Alfred, San Francisco, Cal. Explosive compound. (Reissue).....	9,173	Apr. 27	1142	.....	17	965
Monroe, Edwin P. (See Osgood and Monroe.)						
Monroe, Halsey H., Thomaston, Mo. Rotary harrow.....	229,267	June 29	1329	366	17	1461
Monroe, Ossian C., Poultney, Vt. Feather-renovator.....	229,268	June 29	1331	366	17	1461
Monsanto, Mauricio M., New York, N. Y. Steam-generator and furnace.....	235,275	Dec. 7	256	71, 72	18	1323
Montant, Alphonse, New York, N. Y. Catch for holding chest-covers, &c.....	230,326	July 20	963	274	18	173
Monteer, Alexander N., Kansas City, Mo. Door-hanger.....	223,941	Jan. 27	901	239	17	183
Monteer, Alexander N., Kansas City, Mo., assignor of one-half interest to D. F. Van Liew. Door-hanger. (Reissue).....	9,174	Apr. 27	1144	313	17	965
Monteith, George, assignor to Active Manufacturing Company, Cincinnati, Ohio. Carriage-dash frame.....	230,325	July 20	962	273	18	173
Montgomery, James. (See Ferguson, William R., assignor.)						
Montgomery, James, Marseilles, Ill. Curtain-fixture.....	224,837	Feb. 24	1022	291	17	417
Montgomery, James, Chicago, Ill. Stock-car.....	233,790	Oct. 26	1229	341 342	18	968
Montgomery, James, assignor to W. A. O. Hegeman, trustee, New York, N. Y. Stock-car..	235,008	Dec. 14	679	193 194	18	1402
Montgomery, John A. (See Wood, Marshall, assignor.)						
Montross, John, Canastota, N. Y. Cutter-bar for harvesters.....	230,887	Aug. 10	349	101	18	311
Montross, John F., Peekskill, N. Y. Hydraulic motor.....	229,736	July 6	259	73	18	46
Moody, Alexander. (See Hoffman and Moody.)						
Moody, C. D. (See Blanchard, Charles H., assignor.)						
Moody, Charles D., assignor to C. B. Wilson, St. Louis, Mo. Razor.....	228,829	June 15	840	229	17	1373
Moody, Daniel W., San Francisco, Cal. Tracing-wheel.....	226,622	Apr. 20	574	160	17	864
Moody, William F., Chicago, Ill. Corner-fastening for connecting bed-bottom frames, &c.....	224,028	Feb. 3	63	19	17	214
Moore, Hazen, Milwaukee, Wis. Steam-radiator.....	234,419	Nov. 16	740	200	18	1127
Mooney, Edward L. (See Ring and Mooney.)						
Mooney, James, <i>et al.</i> (See Duffy, James F., assignor.)						
Mooney, John B., assignor to J. L. Haven, Cincinnati, Ohio. Steamboat-staging.....	233,159	Oct. 12	450	124	18	819
Mooney, John B., assignor to J. L. Haven, Cincinnati, Ohio. Steamboat-staging.....	233,160	Oct. 12	451	124	18	819
Moore, Albert L., and N. S. Parker, Portland, Ore. Turbine water-wheel.....	231,079	Aug. 10	556	157	18	344
Moore, Alfred F., Philadelphia, Pa. Insulated electric conductor.....	229,735	July 6	259	72	18	46
Moore, Alonzo, Bangkok, Siam. Furnace for burning chaff, &c.....	234,318	Nov. 9	600	163	18	1095
Moore, Aquila, assignor to Peck Brothers & Co., New Haven, Conn. Fancet.....	223,374	Jan. 6	189	49	17	35
Moore, Asher H., Ellensburg, Ore. Machine for filling cans with meat, fish, &c.....	227,283	May 4	220	65	17	1014
Moore, Benjamin. (See Mount, Mark L., assignor.)						
Moore, Charles, assignor to H. C. Sergeant and G. R. Cullingworth, New York, N. Y. Pressure-regulator for air, &c.....	234,051	Nov. 2	277	76	18	1032
Moore, Edward, Portland, Me. Revolving dredge.....	233,365	Oct. 19	723	197	18	872
Moore, Frank, Minden, La. Solar compass.....	224,102	Feb. 3	153	43, 44	17	229
Moore, Franklin, Horn Lake, Miss. Machine for filing gin-saws.....	230,037	July 13	610	169	18	108
Moore, George H. (See Shade and Moore.)						
Moore, George R., Philadelphia, Pa., assignor, by mesne assignments, to J. S. Perry and G. Sard, Jr., trustees. Heating-stove. (Reissue).....	9,247	June 8	697	191	17	1345
Moore, George W., and J. W. Pertz, Pittsburg, Pa. Balanced valve.....	234,602	Nov. 16	974	259	18	1166
Moore, Hartwell L., Norwalk, Ohio. Organ-pedal.....	225,855	Mar. 23	1032	297	17	663
Moore, Henry A., Texas, Ga. Handle for tools.....	224,786	Feb. 24	973	276	17	408
Moore, Henry C., Tama City, Iowa, assignor of one-half interest to S. B. Sherer. Road-scraper. (Reissue).....	9,417	Oct. 19	982	272	18	916
Moore, Henry E., assignor of one-half interest to G. S. Burton, Boston, Mass. Button for cuffs, &c.....	225,853	Mar. 23	1031	297	17	663
Moore, Ha N., Battle Creek, Mich. Knitting-machine.....	236,062	Dec. 28	1246	344	18	1511
Moore, James A., Kewanna, Ind. Spring-propelled carriage.....	223,373	Jan. 6	187	49	17	34
Moore, James C., Saltsburg, Pa. Ladder.....	224,462	Feb. 10	562	161	17	315
Moore, James C., Brookston, Ind. Apparatus for lifting, carrying, and lowering heavy bodies.....	225,408	Mar. 9	507	146	17	554
Moore, James M., Canton, Conn. Railway-switch.....	228,665	June 8	602	161	17	1330
Moore, Jesse, Muncie, Ind. Staffing device for mill-burrs.....	233,427	Oct. 19	800	221	18	885
Moore, John. (See Maker, Nathan P., assignor.)						
Moore, John W., Lansingburg, N. Y. Valve.....	229,902	July 13	458	127	18	85
Moore, Jonathan, Jr., Brooklyn, N. Y. Grate for stoves.....	228,266	June 1	133	37	17	1247
Moore, Joseph A., Indianapolis, Ind. Cabinet-desk. (Reissue).....	9,402	Oct. 12	637	176	18	852
Moore, Joseph M., Ovilla, Tex. Harvester-reel.....	225,854	Mar. 23	1032	297	17	663
Moore, Samuel, New Salem, Ill. Bee-hive.....	228,666	June 8	603	161	17	1330
Moore, Samuel, Providence, R. I. Shoe-nail.....	232,745	Sept. 28	1041	285	18	719
Moore, Thomas, Cheyenne City, Wyo. Ter. Fastening device.....	229,166	June 22	1219	334	17	1437
Moore, William, Kokomo, Ind. Steam-boiler and furnace.....	227,813	May 18	836	237	17	1134
Moore, William H. (See Skells and Moore.)						
Moorefield, Armistead Y., Tallassa, Ala. Instrument for turning edges of cloth.....	229,417	June 29	1550	427	17	1490
Moore, Thomas P., Milliken's Bend, La. Cotton-picker.....	228,101	May 25	1189	338	17	1202
Moorman, Eli H., Walnut township, Madison county, Iowa. Car-coupling.....	228,469	June 8	363	99	17	1294
Mora, Thomas, Franklin, La. Umbrella-support.....	225,409	Mar. 9	507	146	17	554
Morahan, Bernard, New York, N. Y. Glazing pottery.....	228,773	June 15	765	210	17	1364
Morahan, Bernard, New York, N. Y. Finishing-tool for pottery-ware.....	228,774	June 15	767	210	17	1364
Moran, John D. (See Griswold and Moran.)						
Moran, Thomas W., Louisville, Ky. Velocipede.....	235,551	Dec. 14	611	174	18	1391
Moran, Thomas W., Louisville, Ky. Tire for bicycles.....	235,552	Dec. 14	611	174	18	1391
Moran, William E., Washington, D. C. Waste-cock.....	232,050	Sept. 7	209	57	18	559
Morand, Franklin A., Cheyenne, and J. Edwards, Hays City, Kans. Car-coupling.....	228,212	June 1	57	18	17	1236



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Mordecai, T. M., <i>et al.</i> (See Chapman, Samuel J., assignor.)						
Morden, William S., Whitehall, Wis. Grain-loading scoop and elevator.....	229,737	July 6	261	73	18	47
More, Zopher W. (See Wickes, Hiram N., assignor.)						
Morehouse, William, Buffalo, N. Y. Anti-incrustator for steam-boilers.....	229,051	June 22	1096	298	17	1419
Morewood, Edmund, Llanelly, South Wales. Apparatus for the manufacture of tin and terne plate. (Reissue).....	9,320	July 27	1316	371	18	238
Morewood, Edmund, and J. H. Rogers, Llanelly, England. Coating metal.....	230,488	July 27	1193	336	18	217
Morey, Nathan D., Saratoga Springs, N. Y. Dish-heater.....	230,039	July 13	612	170	18	109
Morey, Nathan D., Saratoga Springs, N. Y. Stove-pipe collar.....	230,040	July 13	613	170	18	109
Morey, Roswell E., assignor of two-thirds interest to J. H. Smith, San Francisco, and J. D. Shorb, San Gabriel, Cal. Return-crate.....	224,939	Feb. 24	1131	323	17	435
Morey, Roswell E., San Francisco, Cal. Berry-basket.....	229,904	July 13	460	127	18	85
Morgan, A. H. (See Britain, Thomas J., assignor.)						
Morgan, Alfred W., Indianapolis, Ind. Baking-pan.....	227,814	May 18	838	237	17	1135
Morgan, Alonzo R., New York, and G. L. Morrison, Brooklyn, assignors to Open Stove Ventilating Company, New York, N. Y. Fire-place heater.....	234,921	Nov. 30	1376	371	18	1244
Morgan, Caleb B., Dublin, Ind. Gate.....	231,968	Sept. 7	118	30	18	543
Morgan, Charles H. (See Kenerson, Virgil D. P., assignor.)						
Morgan, Charles H., Worcester, Mass. Reel for wire-rod-rolling mills.....	224,787	Feb. 24	974	276	17	408
Morgan, Charles H., Worcester, Mass. Preparing wire for drawing.....	229,836	July 13	357		18	73
Morgan, Charles H., and F. H. Daniels; said Daniels assignor to Washburn & Moen Manufacturing Company, Worcester, Mass. Reel for rolling-mills.....	224,838	Feb. 24	1023	291	17	417
Morgan, Charles H., and F. H. Daniels; said Daniels assignor to Washburn & Moen Manufacturing Company, Worcester, Mass. Guide for wire-rod-rolling mills.....	224,839	Feb. 24	1025	292	17	417
Morgan, Charles H., and F. H. Daniels; said Daniels assignor to Washburn & Moen Manufacturing Company, Worcester, Mass. Reel for rolling-mills.....	224,840	Feb. 24	1028	293	17	418
Morgan, Charles H., Worcester, Mass. Reel for coiling wire rods.....	224,941	Feb. 24	1134	324	17	435
Morgan, Charles H., and F. H. Daniels; said Daniels assignor to Washburn & Moen Manufacturing Company, Worcester, Mass. Reel for coiling wire rods.....	224,942	Feb. 24	1135	324	17	435
Morgan, Charles H., Worcester, Mass. Machine for forming and tempering paragon ribs for umbrellas.....	225,943	Mar. 30	1152	327	17	696
Morgan, Charles J. (See Jay, William H., assignor.)						
Morgan, David L., Rutland, Vt. Button and button-fastening.....	230,950	Aug. 10	424	122	18	323
Morgan, Dayton S. (See Bordwell, Joseph, assignor.)						
Morgan, Frank E., New Haven, and J. A. Everts, assignors to Bradley & Hubbard Manufacturing Company, West Meriden, and Jerome & Co., New Haven, Conn. Table-clock.....	233,537	Oct. 19	922	254	18	906
Morgan, Hubert W., assignor to H. W. Ely, S. C. Carpenter, E. Collins, J. S. Clark, W. F. Johnson, D. Avery, and H. W. Morgan, Westfield, Mass. Casket or coffin handle.....	234,320	Nov. 9	601	164	18	1095
Morgan, James. (See Arno, Oliver H., assignor.)						
Morgan, James, Pittsburg, Pa. Machine for making bolts and rivets.....	233,685	Oct. 26	1113	310	18	547
Morgan, John T., New Brunswick, N. J. Hinge.....	232,747	Sept. 28	1042	286	18	719
Morgan, Lewis B. (See Hedges and Morgan.)						
Morgan, Lewis B., assignor of two-thirds interest to J. E. Wayt, West Liberty, W. Va., and W. Rice, Jr., West Alexander, Pa. Plow and cultivator handle.....	226,535	Apr. 13	457	129	17	834
Morgan, Richard P., Jr., Bloomington, Ill. Ventilating cars.....	223,375	Jan. 6	189	50	17	35
Morgan, Stephen. (See Stead, James C., assignor.)						
Morgan, Thomas R., Alliance, Ohio. Steam-hammer.....	231,185	Aug. 17	692	194	18	373
Morgan, William A., Home, Tenn. Straw-cutter.....	224,104	Feb. 3	155	44	17	229
Morgau, William F., McKeesport, Pa. Railway-rail joint.....	231,837	Aug. 31	1441	405	18	505
Morgau, William J., Hillsborough, Ohio. Rein-holder.....	224,711	Feb. 17	849	242	17	374
Morgan, William S., Evansville, Wis. Seed-sower.....	226,413	Apr. 13	304	88	17	811
Morgan, William V., and T. W. Hackman, Allertown, Iowa. Sulky-plow.....	232,052	Sept. 7	211	57	18	559
Morgauroth, I. N. (See Reed, John H., assignor.)						
Morrison, William C., San Francisco, Cal. Automatic coin-counting device.....	227,038	Apr. 27	1067	296	17	955
Moritz, Adolph, Schwerin, Germany. Machine for working rattan.....	224,212	Feb. 3	273	79	17	249
Morledge, Charles H., and L. Bennett, Allegheny, Pa. Sewing-machine caster.....	224,788	Feb. 24	974	277	17	409
Morley, Allen T., Columbus, Ohio. Furnace.....	227,989	May 25	1067	303	17	1182
Morley, James H., Holyoke, Mass. Feeding device for sewing-machines.....	228,918	June 15	934	254	17	1387
Morley, Oliver W., Wixom, Mich. Shaft-tug.....	236,063	Dec. 28	1247	344	18	1511
Morningstar, Martin E., and J. W. Roberts, Arkona, Ontario, Canada. Car-coupling.....	230,038	July 13	611	170	18	108
Moro, Ferdinand, Kladno, Bohemia, Austria. Apparatus for casting ingots of uniform weight.....	231,838	Aug. 31	1441	405	18	505
Morpheus, Enos A., Petersburg, Ill. Check-roller.....	223,679	Jan. 20	579	156	17	121
Morrell, Thomas T., Johnstown, Pa., assignor to himself and Cambria Iron Company. Grinding and triturating apparatus.....	234,052	Nov. 2	278	76	18	1032
Morrill, Charles, New York, N. Y. Saw-set.....	224,789	Feb. 24	975	277	17	409
Morrill, Charles, New York, N. Y. Saw-set.....	235,374	Dec. 14	391	107	18	1354
Morrill, George E., and F. W. Sawyer, Gardiner, Me. Shuttle-spindle.....	224,790	Feb. 24	976	277	17	409
Morrill, George P., Canterbury, N. H. Wedge for ax and tool handles.....	224,029	Feb. 3	64	20	17	214
Morris, Almon T., Tiffin, Ohio. Sawing-machine.....	234,886	Nov. 30	1336	360	18	1237
Morris, Asher E., Janesville, Minn. Spring draft attachment for horse-powers.....	226,097	Mar. 30	1338	377	17	724
Morris, Christopher, Henry County, and M. S. Heacock, Wayne County, Ind. Platform-harrow.....	231,080	Aug. 10	557	157	18	344
Morris, David and T., San Francisco, Cal. Pneumatic annunciator.....	228,267	June 1	133	37	17	1247
Morris, David and T., San Francisco, Cal. Pneumatic railway-signal.....	228,550	June 8	469	126	17	1310
Morris, Edward L., Boston, Mass. Toy savings-bank.....	223,293	Jan. 6	110	27	17	20
Morris, Edward L., Boston, Mass. Toy money-box.....	230,713	Aug. 3	136	40	18	268
Morris, Edward L., Boston, Mass. Toy.....	235,641	Dec. 21	722	205	18	1416
Morris, Eli, New Haven, Conn. Saw.....	227,815	May 18	838	237	17	1135
Morris, George M., Cohoes, assignor to National Button Hole Machine Company, Troy, N. Y. Eyelet-hole attachment for sewing-machines.....	227,640	May 18	638	183	17	1104
Morris, Henry B., assignor of one-half interest to P. G. Ellsworth, Ithaca, N. Y. Manufacture of buttons or studs.....	233,869	Nov. 2	50	14	18	995
Morris, Henry G., Philadelphia, Pa. Hydraulic hoisting-engine.....	234,053	Nov. 2	279	76	18	1032
Morris, James C., Philadelphia, Pa. Purifying rancid butter.....	232,051	Sept. 7	210		18	559
Morris, John H. (See Morris, William, J. H., and T. D.)						
Morris, John H., W., and T. D., Seward, Nebr. Animal-trap.....	225,628	Mar. 16	762	224	17	609
Morris, John P., Walton, Tex. Wagon-body lifter.....	231,495	Aug. 24	1034	290	18	435
Morris, Milam R. (See Taylor, White, and Morris.)						
Morris, Robert. (See Liddle and Morris.)						
Morris, Royal, assignor to J. S. McDonald, Chicago, Ill. Temporary binder.....	227,699	May 18	710	201	17	1115
Morris, Theodore. (See Morris, David and T.)						

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Morris, Thomas D. (See Morris, William, J. H., and T. D.)						
Morris, William. (See Morris, John H., W., and T. D.)						
Morris, William, J. H., and T. D., Seward, Nebr. Animal-trap.....	235,553	Dec. 14	612	{ 174 175 }	18	1391
Morrison, A. H. (See Hubbard, Eber, assignor.)						
Morrison, David H., Dayton, Ohio. Lifting-jack.....	228,830	June 15	840	{ 229 230 }	17	1373
Morrison, Gardner L. (See Morgan and Morrison.)						
Morrison, James, Toronto, Ontario, Canada. Covering for steam-cock handles.....	225,481	Mar. 16	597	173	17	579
Morrison, Joseph M., Washington, D. C. Aging liquors.....	229,269	June 29	1332	366	17	1461
Morrison, Thomas W., Newark, N. J. Table.....	224,302	Feb. 10	382	308	17	286
Morrow, Catherine L. (See Jacques, George S., assignor.)						
Morrow, James P., and H. F. Bush, Greenfield, Ohio. Vehicle-spring.....	229,630	July 6	136	38	18	89
Morschhauser, Joseph, Hyde Park, assignor to W. H. Hicks, New York, N. Y. Bottle-stopper. (Reissue).....	9,521	Dec. 28	1344	363	18	1527
Morse, Augustus F., and G. F. McIntosh, Hallowell, Me. Ash-sifter.....	234,319	Nov. 9	600	163	18	1095
Morse, Charles A., Leonister, Mass. Explosive compound.....	234,489	Nov. 16	824		18	1140
Morse, Cyrus B., Rhinebeck, N. Y., assignor of one-half interest to Fales, Jenks & Sons, Pawtucket, R. I. Spinning-ring and holder.....	226,242	Apr. 6	109	30	17	765
Morse, Cyrus B., Rhinebeck, N. Y., assignor of one-half interest to S. A. Jenks, Pawtucket, R. I. Device for making spinning-ring blanks.....	230,888	Aug. 10	350	101	18	311
Morse, Cyrus B., Rhinebeck, N. Y. Axle for railway-cars.....	233,634	Oct. 26	1058	294	18	938
Morse, Cyrus B., Rhinebeck, N. Y. Mold and core for casting hollow ingots.....	235,796	Dec. 21	901	252	18	1447
Morse, Edmund L., St. Louis, Mo. Feed-water heater.....	228,831	June 15	842	230	17	1374
Morse, Edward, Boston, and L. Barnham, Woburn, Mass. Egg-beater.....	227,378	May 11	348	101	17	1045
Morse, E. Fleet, Ithaca, N. Y. Lawn-mower and bearing.....	225,232	Mar. 9	296	85	17	520
Morse, George A. (See Shuman, Thomas, assignor.)						
Morse, Harris, Columbia, assignor to A. J. Severance, San Francisco, Cal. Rock-drilling machine.....	223,529	Jan. 13	395	105	17	82
Morse, James O., Englewood, N. J. Pipe-tongs.....	235,957	Dec. 28	1124	310	18	1491
Morse, Lewis, North Attleborough, Mass., assignor to E. I. Richards, New York, N. Y. Sleeve-button.....	226,769	Apr. 20	733	204	17	890
Morse, Lewis, assignor to E. I. Richards, North Attleborough, Mass. Uniting glass and enamel to metal.....	226,770	Apr. 20	733	205	17	890
Morse, Oliver, Needham, Mass. Bed-plate for paper-pulp engines.....	226,098	Mar. 30	1338	377	17	724
Morse, Oliver C., Washington, D. C. Wardrobe.....	228,919	June 15	936	{ 254 255 }	17	1387
Morse, Orville M. (See Shuttleworth and Morse.)						
Morse, Robert A., assignor to D. Ford, Milwaukee, Wis. Corner-iron for wagon-seats.....	223,294	Jan. 6	110	27	17	20
Morse, Robert A., Racine, Wis. Side-bar wagon.....	229,167	June 22	1220	334	17	1437
Morse, Roswell C., assignor to Racine Wagon and Carriage Company, Racine, Wis. Platform-wagon.....	230,563	July 27	1270	358	18	230
Morse, Silas J., Holliston, Mass. Railway-station indicator.....	235,375	Dec. 14	392	108	18	1354
Morse, Thomas G., assignor of one-half interest to Jarecki Manufacturing Company, (limited,) Erie, Pa. Key for attaching gearing to shafting.....	224,103	Feb. 3	154	44	17	229
Mort, Frederick H., Widnes, England. Closing drums containing caustic soda.....	230,646	Aug. 3	61	17	18	257
Mortenson, Laurids J. M., Western Union Junction, Wis. Wagon-hound brace-holder.....	236,064	Dec. 23	1247	344	18	1511
Morton, Albanus W., Brooklyn, assignor to Morton Gas Stove Company, New York, N. Y. Gas stove or oven.....	235,640	Dec. 21	720	205	18	1416
Morton Gas Stove Company. (See Morton, Albanus W., assignor.)						
Morton, James, Philadelphia, Pa. Hydraulic engine.....	223,530	Jan. 13	397	105	17	82
Morton, John. (See Woods, Frank M., assignor.)						
Morton, John, Thornville, Mich. Fence.....	230,645	Aug. 3	60	17	18	256
Morton, John H., Keyport, N. J. Furnace for roasting and reducing ores.....	232,537	Sept. 21	800	222	18	671
Morton, Joseph V., Winchester, Va. Sewing-machine motor.....	225,627	Mar. 16	761	224	17	609
Morton, Matthew, Romeo, Mich. Horse-power.....	227,037	Apr. 27	1066	296	17	955
Morton, Robert T., Clarksville, Mo. Nut-lock.....	227,284	May 4	221	65	17	1014
Morton, Rufus J., Big Lick, N. C. Stirrer for coffee-roasters.....	225,758	Mar. 23	930	269	17	646
Morton, Thomas M., Baltimore, Md. Steam-radiator.....	233,428	Oct. 19	800	221	18	885
Morton, Vega B., Ceralvo, Ky. Counter or heel stiffener for boots and shoes.....	226,771	Apr. 20	734	205	17	890
Morton, Warner G., Pittsfield, Mass. Device for clamping and tearing checks or paper.....	233,636	Oct. 26	1115	310	18	947
Mortz, Joseph O., assignor of one-half interest to L. Goss and H. Adams, San Francisco, Cal. Ore-feeder for crushing-mills.....	229,903	July 13	459	127	18	85
Moseley, Frederick W., Poulney, Vt. Milk-cooler. (Reissue).....	9,156	Apr. 13	519	145	17	844
Moseley, Handson C., Prosperity, S. C. Dripping-can.....	232,141	Sept. 14	313	88	18	583
Moseley, Thomas W. H., and V. Koch, Scranton, Pa. Refrigerator.....	225,629	Mar. 16	763	225	17	609
Moses, Robert H., New York, N. Y. Artificial flower and pot.....	226,922	Apr. 27	933	259	17	933
Moses, Walter S., assignor to himself and J. S. Jewett, Gloucester, Mass. Tool for clearing rock-drill holes.....	230,145	July 20	752	210	18	140
Mosher, Charles A., Sharon, Vt., and G. A. Mosher, Troy, N. Y. Dairy-bureau.....	227,567	May 11	551	158	17	1079
Mosher, George A. (See Mosher, Charles A. and G. A.)						
Mosher, George D., New Hartford, Conn. Snap-hook.....	223,858	Jan. 27	799	214	17	167
Mosher, George D., New Hartford, Conn. Snap-hook.....	231,496	Aug. 24	1035	290	18	435
Mosher, John W. (See Hurd and Mosher.)						
Mosher, Martin J., Troy, N. Y. Sad-iron furnace.....	227,036	Apr. 27	1065	295	17	954
Mosier, Franklin C. (See Detrick, Calvin, assignor.)						
Mosler, John, and H. Ladewig, Philadelphia, Pa. Chair and carriage for children.....	229,906	July 13	462	128	18	85
Mosler, Moses, Cincinnati, Ohio. Safe.....	229,905	July 13	461	{ 127 128 }	18	85
Mosler Safe and Lock Company. (See Berkmyer and Brown, assignors.)						
Mosman, Charles F., assignor to C. Rogers & Brothers, West Meriden, Conn. Coffin-handle tip.....	227,285	May 4	222	65	17	1014
Mosman, Charles F., assignor to C. Rogers & Brothers, West Meriden, Conn. Coffin-handle socket.....	227,286	May 4	222	66	17	1014
Mosman, Charles F., assignor to C. Rogers & Brothers, West Meriden, Conn. Coffin-handle tip.....	227,816	May 18	839	237	17	1135
Mosman, Charles F., assignor to C. Rogers & Brothers, West Meriden, Conn. Coffin-handle socket.....	227,817	May 18	840	238	17	1135
Moss, Anderson. (See Pendley and Moss.)						
Moss, Jesse L., Jr., Westerly, R. I. Loom-heddle.....	235,098	Dec. 7	40	12	18	1288
Mosteller, Rudolph W. (See Rose, Charles P., assignor.)						
Motheral, John, North McGregor, Iowa. Derrick for hoisting, grubbing, &c.....	227,442	May 11	412	120	17	1056
Motley, Patrick, assignor of one-half interest to J. Murry, Girardville, Pa. Faucet.....	232,291	Sept. 14	496	138	18	615

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Mott, Delos W., Hampton, Iowa. Hand and foot motor.....	229,739	July 6	262	74	18	47
Mott Iron Works, J. L. (See McFarland, Samuel G., assignor.)						
Mott, Samuel D., Menlo Park, N. J. Medicine-measuring tube.....	230,960	Aug. 10	424	122	18	323
Mouldin, George W., St. Louis, Mo. Operating hatchway-doors.....	224,213	Feb. 3	275	79	17	249
Moulson, Thomas. (See Burbank, Abner, assignor.)						
Moulton, Arthur H., Jr., Akron, N. Y. Snap-hook.....	234,716	Nov. 23	1120	302	18	1196
Moulton, Charles G., and J. G. Marquardt, assignors to Black & Germer, Erie, Pa. Orna- menting stove-cylinders.....	232,053	Sept. 7	212	57	18	559
Moulton, Charles G., assignor to Black & Germer, Erie, Pa. Coal-stove.....	233,687	Oct. 26	1116	{ 310 311 }	{ 18 18 }	{ 948 948 }
Moulton, Franklin, assignor of one-half interest to C. M. Adams, Ashland, Mass. Hool- trimmer.....	233,103	Oct. 12	389	107	18	808
Moulton, Hamilton L., Camden, N. J., assignor to J. Smith Woolen Machinery Company, Philadelphia, Pa. Bearing for shafts.....	231,342	Aug. 17	864	243	18	400
Moulton, Hamilton L., Camden, N. J., assignor to J. Smith Woolen Machinery Company, Philadelphia, Pa. Mechanical movement.....	232,538	Sept. 21	802	222	18	672
Mounsdon, Albert W. (See Smith and Mounsdon.)						
Mount, Mark L., Pearsalls, assignor to himself and B. Moore, Brooklyn, N. Y. Matched hook.....	229,738	July 6	261	73	18	47
Mountain, William M. (See Myers and Mountain.)						
Mousam Manufacturing Company. (See Kennard, Charles E., assignor.)						
Mousam Manufacturing Company. (See Wagg and Shaw, assignors.)						
Mower, Jacob W. (See Wolff, John F., assignor.)						
Mower, Samuel E., assignor to Magnetic Lasting Machine Association, Milford, Conn. Hand nailing-machine.....	225,482	Mar. 16	598	174	17	580
Mowlds, Thomas D., Philadelphia, Pa. Water-cooler.....	224,712	Feb. 17	849	242	17	374
Mowlds, Thomas D., Philadelphia, Pa. Water-cooler.....	235,696	Dec. 21	787	222	18	1427
Mowry, A. J. (See Warner, Israel V., assignor.)						
Moyer, Joseph H. (See Grunder and Moyer.)						
Muchin, Matvei K., Riga, Russia. Centrifugal machine.....	235,797	Dec. 21	902	252	18	1447
Mucklé, Mark R., Philadelphia, Pa. Envelope-opener.....	233,161	Oct. 12	452	124	18	819
Mucks, Johannes W., Lippehne, Prussia, Germany. Rocking-cradle.....	225,233	Mar. 9	298	85	17	520
Mudford, Robert S., Texarkana, Ark. Gin-saw sharpener.....	230,489	July 27	1195	336	18	217
Mudge, William L., et al. (See Lamb, Charles, assignor.)						
Mudgett, Joseph H., Camanche, Iowa, assignor, by mesne assignments, to C. Colahan, Cleveland, Ohio. Grain-binder. (Reissue).....	9,280	July 6	330	91	18	57
Mueller, John. (See Ripp and Mueller.)						
Mueller, John U., Detroit, Mich. Jetty-shutter.....	226,772	Apr. 20	735	205	17	890
Mueller, Theodore, assignor to T. B. Hagstoz and C. N. Thorpe, Philadelphia, Pa. Device for making bezels and backs for watch-cases.....	226,870	Apr. 27	870	242	17	923
Muench, Theodor, Vienna, Austria. Picture-exhibitor.....	231,343	Aug. 17	865	{ 243 244 }	{ 18 18 }	{ 400 400 }
Mug, John T. (See Blakeslee, Owen B., assignor.)						
Muirhead, Alexander, Westminster, England, and G. K. Winter, Madras, India. Quadru- plex telegraph.....	227,039	Apr. 27	1070	297	17	955
Muirhead, Alexander, Westminster, England, J. A. Briggs, Jubbulpore, and G. K. Winter, Arconam, Madras, India. Duplex telegraph.....	227,040	Apr. 27	1075	297	17	955
Muirhead, Alexander, Oakwood, Farquhar Road, Upper Norwood, London, England. Du- plex and multiplex telegraph.....	230,802	Aug. 3	235	68	18	285
Muirhead, Alexander, Oakwood, Farquhar Road, Upper Norwood, London, England. In- sulated telegraph-wire.....	230,803	Aug. 3	236	68	18	285
Muirhead, Alexander, London, England. Duplex telegraph.....	234,490	Nov. 16	826	220	18	1140
Mulholen, Joseph S., Fostoria, Pa. Stump-puller.....	225,196	Mar. 2	243	68	17	498
Mulholland, Richard, Dunkirk, N. Y. Torsion-spring.....	230,327	July 20	965	274	18	173
Mullenhoff, Leopold, Buffalo, N. Y. Car-coupling.....	230,804	Aug. 3	237	68	18	286
Müller, August E., Vienna, Austria. Escapement.....	231,839	Aug. 31	1443	406	18	506
Müller, Carl O. (See Einkenkel and Müller.)						
Müller, Hermann G., San Francisco, Cal., assignor to A. E. Barthel, Detroit, Mich. Pre- served wood.....	236,065	Dec. 28	1248	-----	18	1512
Müller, Jacob G., Buffalo, N. Y. Refrigerator-building.....	233,945	Nov. 2	135	37	18	1009
Müller, Jacob G., Buffalo, N. Y. Beer-cooler.....	235,554	Dec. 14	613	175	18	1392
Müller, Jacob G., New York, N. Y. Ice-house.....	235,555	Dec. 14	613	175	18	1392
Müller, John P., Burlington, Iowa. Water-motor.....	230,564	July 27	1270	358	18	230
Müller, Richard. (See Frings and Müller.)						
Müller, Teile H., New York, assignor to S. S. Hepworth, Yonkers, and J. Colwell, New York, N. Y. Centrifugal machine.....	225,631	Mar. 16	765	225	17	610
Mullins, William J., et al. (See Ward, Michael, assignor.)						
Mumford, Charles H., Providence, R. I. Button and stud.....	231,234	Aug. 17	754	211	18	382
Mundell & Co., John. (See Shay, James T., assignor.)						
Mundell & Co., John. (See Witham, Robert W., assignor.)						
Mundell, John, Jr. (See Witsil, George L., assignor.)						
Mundy, Ellis L., et al. (See Nichols, Moses O., assignor.)						
Mundy, Joseph S., Newark, N. J. Friction-drum. (Reissue).....	9,289	July 13	684	191	18	120
Munger, Jérôme S., assignor of one-half interest to A. M. Williams, Edenburg, Pa. Globe or check valve.....	223,749	Jan. 20	650	175	17	133
Munger, Jerome S., assignor of three-fourths interest to W. M. Kirkpatrick and E. J. Little, Edenburg, (Knox P. O.) Pa. Cutter for removing well-casings.....	224,465	Feb. 10	566	163	17	316
Munroe, William C., Buffalo, N. Y. Ore-roasting furnace.....	227,618	May 18	840	238	17	1135
Munsou, Aden K., Marysville, Kans. Neck-yoke.....	230,328	July 20	966	274	18	173
Munson, Allen A., La Grange, Mich. Combined elevator and carrier.....	225,630	Mar. 16	764	225	17	610
Munson, Harvey S., New Haven, Conn. Paper box.....	226,872	Apr. 27	872	{ 242 243 }	{ 17 17 }	{ 923 923 }
Munson, Harvey S., New Haven, Conn. Paper box.....	227,916	May 25	975	279	17	1168
Munson, Parnell, et al. (See Blatherwick, Nelson J., assignor.)						
Munson, William, Hyde Park, Pa. Thill-coupling.....	228,832	June 15	843	230	17	1374
Munz, Jacob F., Delaware, Ohio. Harrow.....	224,601	Feb. 17	736	209	17	355
Munz, Jacob F., Delaware, Ohio. Sulky-plow.....	224,713	Feb. 17	850	242	17	375
Murch, Chauncey M., Cincinnati, Ohio. Vehicle-spring.....	226,536	Apr. 13	458	129	17	834
Murch, Chauncey M., Cincinnati, Ohio. Running-gear for vehicles.....	229,329	June 29	1415	388	17	1471
Murch, Chauncey M., Cincinnati, Ohio. Passenger-vehicle.....	230,041	July 13	613	170	18	109
Murch, Lewis W., Kennedy, N. Y. Rotary churn.....	233,272	Oct. 12	582	161	18	842
Murcheson, Duncan L. (See Armstrong and Murcheson.)						
Murchison, Isaac A., Manchester, N. C. Hoe and rake.....	225,157	Mar. 2	200	56	17	491

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Murdoch, William C., and E. K. Haynes, both deceased, assignors, by mesne assignments, to J. Carnrick, Cresskill, and G. D. Coaney, Bayonne, N. J. Apparatus for dipping and coating confections. (Reissue).....	9,286	July 6	338	93	18	58
Murdock, James, Jr., Cincinnati, Ohio. Metallic check-blank.....	226,871	Apr. 27	871	242	17	923
Murdock, Robert M. (See Smith and Murdock.)						
Murgatroyd, Frank, Cleveland, Ohio. Hoisting-engine. (Reissue).....	9,378	Sept. 14	538	149	18	622
Murley, John, assignor of one-half interest to H. C. Gifford, Morris, Ill. Adjustable safeguard for circular saws.....	227,287	May 4	222	66	17	1015
Murphey, Martin, Brooklyn, assignor to W. McDonough, New York, N. Y. Window-cornice.....	224,466	Feb. 10	567	163	17	316
Murphey, Martin, Brooklyn, N. Y. Extension-cornice.....	232,838	Oct. 5	54	16	18	747
Murphin, Joseph, assignor of one-half interest to A. B. Richman, Malaga, N. J. Fruit-jar.....	233,792	Oct. 26	1233	343	18	968
Murphy, Francis, assignor to himself and D. Jones, New York, N. Y. Feed-pump for boilers.....	233,791	Oct. 26	1232	342	18	968
Murphy, Hugh. (See Kipp and Murphy.)						
Murphy, James, San Antonio, Tex. Book-rack.....	229,740	July 6	263	74	18	47
Murphy, William, Montreal, Quebec, Canada. Cooking-stove.....	224,464	Feb. 10	505	{ 162 163 }	{ 17 }	315
Murphy, William H., assignor of one-half interest to A. A. Howlett, Syracuse, N. Y. Paper shovel-blade.....	229,741	July 6	264	74	18	47
Murray, Charles A., assignor of one-half interest to J. Fahy, Pittsburg, Pa. Machine for cutting meat.....	226,184	Apr. 6	45	11	17	754
Murray, Craig, Vicksburg, Mich. Wheel-harrow.....	229,548	July 6	51	14	18	16
Murray, David, and T. W. McGregor, Rushford, Minn. Barrel-making machine.....	232,054	Sept. 7	213	58	18	559
Murray, Henry, assignor of one-half interest to R. P. Davis, Philadelphia, Pa. Bracelet-clasp.....	231,235	Aug. 17	754	211	18	382
Murray, James, and F. W. Holt, assignor of one-third interest to A. J. McGee, St. George, New Brunswick, Canada. Lath-bolter.....	226,537	Apr. 13	459	{ 129 130 }	{ 17 }	834
Murray, John. (See Winterbottom and Murray.)						
Murray, John A., assignor of one-half interest to C. C. Castle, Stockton, Cal. Ditching and dredging machine.....	230,329	July 20	967	{ 274 275 }	{ 18 }	173
Murray, Maurice M., Coulterville, Cal. Sluice-box for saving gold.....	234,887	Nov. 30	1337	360	18	1237
Murray, Peter, Newark, N. J. Condenser.....	234,140	Nov. 9	384	106	18	1057
Murray, Thomas W. B., and C. J. Baker, Chicago, Ill. Folding boat.....	228,470	June 8	364	{ 99 100 }	{ 17 }	1295
Murray, Thomas W. B., and C. J. Baker, Chicago, Ill. Folding cot.....	228,775	June 15	768	210	17	1364
Murray, Thomas W. B., and C. J. Baker, Chicago, Ill. Folding cot.....	228,920	June 15	937	255	17	1387
Murray, William A., Glenore, New Zealand. Fence-wire stretcher.....	227,443	May 11	413	120	17	1056
Murrell, Samuel, assignor of one-half interest to J. M. Leonard, Joplin, Mo. Separating and condensing zinc or white-lead fumes.....	229,448	June 29	1550	427	17	1491
Murry, John. (See Motley, Patrick, assignor.)						
Murry, John H., et al. (See Murry, Samuel, assignor.)						
Murry, Samuel, McConnellsville, Ohio, assignor to J. H. Murry, Indianapolis, Ind., and S. A. Murry, Peoria, Ill. Box-clamp.....	231,604	Aug. 24	1159	324	18	454
Murry, Samuel A., et al. (See Murry, Samuel, assignor.)						
Murtagh, John, assignor of one-half to T. W. Carter, Boston, Mass. Burning drain-pipe.....	236,066	Dec. 28	1249	345	18	1512
Mussells, Arthur W., and J. Pray, Lynn, Mass. Shank creasing, coloring, and stamping machine.....	224,030	Feb. 3	64	20	17	214
Musselman, John A., Steinsburg, Pa. Cooking-stove.....	224,463	Feb. 10	563	162	17	315
Musser, James P. (See Curtis, Musser, and Trowbridge.)						
Musser, J. Hall. (See Paul, John A., assignor.)						
Musser, Oscar G., Fleming, Pa. Bedstead-fastening.....	224,714	Feb. 17	852	243	17	375
Musser, Peter, Muscatine, Iowa. Lumber-trimming machine.....	223,942	Jan. 27	901	239	17	183
Mussgiller, Friedrich C., and R. W. Schedler, Jersey City Heights, N. J., assignors to W. Zinsser & Co. Treating beer and other liquids. (Reissue).....	9,129	Mar. 23	1100	-----	17	674
Mycoeth, Richard, Sr. (See Perkins, John C., assignor.)						
Myer, Henry B., and H. Skinner, Chicago, Ill. Car-coupling.....	225,410	Mar. 9	508	147	17	554
Myer, Hubert V., Newark, N. J. Lift-pump valve.....	228,668	June 8	605	162	17	1330
Myers Brothers & Co. (See Stone, John W., assignor.) (Reissue.)						
Myers, Byron L., Peru, Ind. Bag-tie and tag-holder.....	230,647	Aug. 3	62	17	18	257
Myers, Christian, San Francisco, Cal. Gang-plow.....	235,890	Dec. 28	1036	286	18	1477
Myers, Francis M., Jersey City Heights, N. J. Binders and box board.....	228,102	May 25	1190	338	17	1202
Myers, George A., Schoolcraft, Mich. Wind-wheel.....	229,907	July 13	463	128	18	86
Myers, Henry M., Beaver Falls, Pa. Spade.....	229,549	July 6	53	14	18	16
Myers, Henry M., Beaver Falls, Pa. Manufacture of shovel-blanks.....	229,550	July 6	53	14	18	16
Myers, John A., Louisville, Ky. Hydraulic motor.....	223,943	Jan. 27	902	240	17	183
Myers, John F., Cortland Village, N. Y. Potato-digger.....	235,166	Dec. 7	128	36, 37	18	1303
Myers, John Q., Waterloo, Iowa. Elevator.....	227,379	May 11	348	101	17	1045
Myers, Julye, Boston, Mass. Salvo.....	224,031	Feb. 3	67	-----	17	215
Myers, Laurence, Philadelphia, Pa. Freight-car.....	225,197	Mar. 2	244	63, 69	17	498
Myers, Lewis Y., and W. M. Mountain, assignors of one-third interest to A. Hurford, Canton, Ohio. Horse hay-fork.....	227,041	Apr. 27	1077	297	17	956
Myers, Philip A., Ashland, Ohio. Force-pump.....	228,103	May 25	1191	338	17	1202
Myers, Samuel, assignor to himself and A. M. Byers & Co., Pittsburg, Pa. Apparatus for tube-testing.....	235,798	Dec. 21	903	252	18	1447
Myers, Thomas H. (See Hathaway and Myers.)						
Myrick, Israel E., assignor to G. W. Turner, Cleveland, Ohio. Feed-water heater.....	232,539	Sept. 21	803	222	18	672
Myrick, Robert L. (See Webb and Myrick.)						
Nagant, Emile and L. Liege, Belgium. Revolving pistol.....	226,923	Apr. 27	934	259	17	933
Nagant, Léon. (See Nagant, Emile and L.)						
Nagel, August, and R. Kaemp, Hamburg, Germany. Disintegrating apparatus for flour-mills.....	228,669	June 8	606	162	17	1330
Nahé, Henry, Brooklyn, assignor to H. Russell & Co., New York, N. Y. Carriage-lantern.....	231,727	Aug. 31	1313	369	18	485
Naish, Theodore, Birmingham, county of Warwick, England. Drilling-machine.....	234,603	Nov. 16	975	259	18	1166
Naismith, John B. (See Lewin, John M., assignor.)						
Nall, Frank C. (See Brooks, George, assignor.)						
Nall, John. (See Smith and Nall.)						
Nance and Palmer. (See Martin, Josiah, assignor.)						
Napier, James J., and J. M. Thompson, San Francisco, Cal. Ore-roasting furnace.....	234,798	Nov. 23	1220	{ 329 330 }	{ 18 }	1211
Nash, Chester C. (See Nims, Frederick C., assignor.)						
Nash, George H., Birmingham, England. Music-leaf turner.....	224,943	Feb. 24	1136	{ 324 325 }	{ 17 }	436
Nash, George W., et al. (See Custer, George, assignor.)						
Nash, Hiram D. (See Wright, Clubb, Nash, and Klees.)						
Nash, Scotto C., Harrisburg, Pa. Thread and pin holder.....	234,922	Nov. 30	1376	371	18	1244



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Nash, Sumner L., <i>et al.</i> (See Terman, James W., assignor.)						
Nason, Horace F., Natick, Mass. Wax-thread sewing-machine.	227,288	May 4	223	66	17	1015
Natchez, Jay L., Dayton, Ohio. Stove-pipe damper.	230,805	Aug. 3	238	69	18	286
Nathan & Dreyfus. (See Wohlers, Emil, assignor.)						
Nation, David H., assignor to G. F. Filley, St. Louis, Mo. Range.	226,340	Apr. 6	218	63	17	785
Nation, David H., assignor to G. F. Filley, St. Louis, Mo. Range.	228,268	June 1	136	38	17	1248
Nation, David H., assignor to G. F. Filley, St. Louis, Mo. Range.	228,269	June 1	137	38	17	1248
Nation, David H., assignor to G. F. Filley, St. Louis, Mo. Range.	228,270	June 1	137	38	17	1248
Nation, David H., assignor to Excelsior Manufacturing Company, St. Louis, Mo. Waffle-iron.	232,055	Sept. 7	216	59	18	560
National Bank Note Company. (See Heckert, William, assignor.)						
National Bell Telephone Company. (See Bell, Alexander G., assignor.)						
National Bell Telephone Company. (See Berliner, Emile, assignor.) (Reissue.)						
National Bell Telephone Company. (See D'Infrevillo, Georges, assignor.)						
National Bell Telephone Company. (See Lockwood, William V., assignor.)						
National Bell Telephone Company. (See Ross, James S., assignor.)						
National Bell Telephone Company. (See Watson, Thomas A., assignor.)						
National Button Holo Machine Company. (See Morris, George M., assignor.)						
National Electric Light and Power Company. (See Heikel, Otto, assignor.)						
National Manufacturing Company. (See Johnson, William J., assignor.)						
National Steamed Grain Company. (See McCoy, John, assignor.)						
National Tube Works Company. (See Matheson, George, assignor.)						
National Tube Works Company. (See Patterson, Peter, assignor.)						
Natter, Ernst W. F. (See Weisse, Ludwig, assignor.)						
Nauerth, George V., Dayton, Ohio. Bill and letter file.	225,632	Mar. 16	766	225	17	610
Nauman, William H., <i>et al.</i> (See Regan, Bernard, assignor.) (Reissue.)						
Nauman, William H., Dayton, Ohio. Grain-drill.	233,109	Oct. 12	390	107	18	809
Nauman, William H., and E. F. Stoddard, Dayton, Ohio. Seeder and cultivator.	236,067	Dec. 28	1249	345	18	1512
Naumann, Louis, and C. Pohl, Plassen, near Dresden, Germany. Treatment of hops for preservation.	223,602	Jan. 13	479		17	96
Naville, Gustavo, <i>et al.</i> (See Affelttranger, Rodolph, assignor.)						
Navin, John N., Indianapolis, Ind. Horseshoe.	234,717	Nov. 23	1121	302	18	1196
Nawadny, Albert, New Orleans, La. Tool-handle.	227,360	May 11	349	102	17	1045
Naylor, James, Jr. (See Burrell and Naylor.)						
Naylor, James, Jr., Rochester, assignor to J. S. Perry, Albany, N. Y. Plated ornament for stoves.	228,921	June 15	938	255	17	1387
Naylor, James, Jr., Rochester, assignor of one-half interest to Whitman & Burrell and D. H. Burrell, Little Falls, N. Y. Tight package.	232,839	Oct. 5	55	16	18	747
Naylor, James, Jr., Rochester, assignor to Burrell, Ives & Co. and D. H. Burrell, Little Falls, N. Y. Machine for pointing and lapping wooden barrel-hoops.	233,538	Oct. 19	923	255	18	906
Naylor, James, Jr., Rochester, assignor to Whitman & Burrell and D. H. Burrell, Little Falls, N. Y. Barrel-hoop and method of dressing and coiling hoops.	233,870	Nov. 2	51	14	18	996
Naylor, Joseph, Sterling, N. J. Manufacture of articles from plastic material.	235,799	Dec. 21	905	252	18	1448
Neacy, Thomas J., Milwaukee, Wis. Log-conveyer.	231,186	Aug. 17	695	195	18	373
Neahous, Herman, Sharpsburg, Pa. Apparatus for treating paraffine-oil.	231,840	Aug. 31	1445	406	18	506
Neal, Benjamin R. (See Brown and Neal.)						
Neal, John W., Xenia, Kans. Churn.	227,289	May 4	225	67	17	1015
Neal, William S., Perdue Hill, Ala. Combined cotton chopper and cultivator.	225,411	Mar. 9	509	147	17	554
Neale, John H., Humboldt, Nebr. Corn-planter.	231,605	Aug. 24	1160	324	18	454
Neale, Melville T., Richmond, Great Britain. Grain-binder.	225,944	Mar. 30	1155	327 328 329	17	696
Neall, Samuel W. (See Latta and Neall.)						
Neall, Samuel W., Philadelphia, Pa. Grain-elevator.	227,820	May 18	842	238	17	1136
Nealley, Edmund H. (See Lufkin, Edwin, assignor.)						
Nebinger, George R., assignor of one-half interest to J. M. Kreamer, Philadelphia, Pa. Churn.	223,652	Jan. 20	545	147	17	116
Neder, Edward, Chicago, Ill. Copy-holder.	227,043	Apr. 27	1080	298	17	956
Needham, Charles A., assignor to himself and E. P. Needham, New York, N. Y. Mechanical musical instrument.	226,341	Apr. 6	219	63	17	786
Needham, Elias P. (See Needham, Charles A., assignor.)						
Needham, Elias P., New York, N. Y. Music-sheet for mechanical musical instruments.	224,715	Feb. 17	852	243	17	375
Needham, Elias P. and O. H., New York, N. Y. Mechanical musical instrument.	224,716	Feb. 17	853	243	17	375
Needham, George M. (See Hedges and Needham.)						
Needham, Joseph V., and G. Hinton, assignors to W. M. and J. C. Scott, Birmingham, England. Safety-lock for fire-arms.	225,994	Mar. 30	1219	344 345	17	706
Needham, Orwell H. (See Needham, Elias P. and O. H.)						
Needham, Orwell H., assignor to E. P. Needham & Son, New York, N. Y. Pneumatic action for organs.	227,042	Apr. 27	1078	298	17	956
Needham & Son, E. P. (See Needham, Orwell H., assignor.)						
Needham & Son, E. P. (See White, Joseph F., assignor.)						
Needles, James H., Columbus, Ohio, assignor of one-half interest to G. S. Woodruff and J. M. Egan, Toronto, Ontario, Canada. Combined apparatus for producing illuminating-gas and generating steam.	231,344	Aug. 17	867	244	18	401
Neely, Thaddeus A., Muncie, Ind. Hose-leak stop.	234,799	Nov. 23	1234	330	18	1212
Neer, Henry C. and S. L., Breckenridge, Ill. Spring-seat for vehicles.	235,276	Dec. 7	258	72	18	1324
Neer, Samuel L. (See Neer, Henry C. and S. L.)						
Neff, Elijah, and A. Thalman, Rochester, Ind. Car-coupling.	228,378	June 1	248	70	17	1267
Neff, Joseph B., Bushnell, Ill. Sulky-plow.	230,042	July 13	614	171	18	109
Neff, Joseph B., Cuba, assignor to R. Elwood, Sycamore, Ill. Sulky-plow.	224,034	Feb. 3	69	21	17	215
Neff, Joseph B., Cuba, assignor to R. Elwood, Sycamore, Ill. Sulky-plow.	224,035	Feb. 3	71	22	17	216
Neff, William, Walnut, Kans. Railway-rail joint.	227,917	May 25	976	279	17	1168
Neider, Fred A., <i>et al.</i> (See Campbell, Peter, assignor.)						
Neider, Fred A., Augusta, Ky. Carriage-curtain fastening.	231,345	Aug. 17	868	244	18	401
Neider, Fred A., Augusta, Ky. Loop for carriage-curtains.	234,888	Nov. 30	1337	360	18	1238
Neil & Auringer <i>et al.</i> (See Reynolds, Hiram, assignor.)						
Neill, Robert, Chicago, Ill. Packing-screw.	231,925	Sept. 7	54	13	18	533
Neill, Stewart, Chillicothe, Ill. Sod-planter.	234,032	Feb. 3	67	21	17	215
Neill, William L., New Orleans, La. Rock-drill.	226,539	Apr. 13	461	130	17	835
Neilson, George, Chelsea, Mass. Nut-lock.	234,054	Nov. 2	280	76	18	1032
Neimeyer, Jacob, Atlantic, Iowa. Gun-wad.	225,412	Mar. 9	511	147	17	554
Nellis, Aaron J., Pittsburg, Pa. Spring-tooth for harrows and cultivators.	234,321	Nov. 9	602	164	18	1095
Nelson, George W. (See Dark, Collins, and Nelson.)						
Nelson, James S., assignor to W. H. Hays and H. M. Smithdeal; said Smithdeal assignor to J. B. Dobyno, Hillsborough, Ill. Neck-yoke center.	226,670	Apr. 20	630	176	17	873
Nelson, J. M. (See McDonald, Thomas and S., assignors.)						

## Alphabetical list of patentees—Continued.

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Nelson, John R., Burlington, Iowa. Burial-casket .....	228,104	May 25	1191	339	17	1202
Nelson, Joshua M., Oakdale, Cal. Vehicle-wheel .....	235,167	Dec. 7	129	37	18	1303
Nelson, Murry. (See Petesch, Charles N., assignor.)						
Nelson, Nels, assignor to Howard & Scherrieble, Providence, R. I. Button and stud .....	234,604	Nov. 16	976	260	18	1166
Nelson, Peter H., Haywood, Cal. Draft-regulator for harrows .....	225,759	Mar. 23	931	269	17	646
Nelson, Peter W., Moline, Ill. Barrel-swing .....	226,538	Apr. 13	460	130	17	834
Nelson, Peter W., Moline, Ill. Automatic rein-holder .....	233,110	Oct. 12	392	107	18	809
Nelson, Thomas, deceased, assignor, by mesne assignments, to E. Wilhelm, Buffalo, N. Y. } Buckwheat-hulling machine. (Reissue) .....	9,161	Apr. 13	528	146 147	17	846
Nelson, William C., Vallejo, and J. N. Young, Sacramento, Cal. Combined stool and cane .....	228,670	June 8	607	163	17	1330
Nemours, John P., St. Louis, Mo., assignor to Parke, Davis & Co., Detroit, Mich. Coating pills .....	231,236	Aug. 17	755		18	382
Neracher, William, Cleveland, Ohio. Stock-car .....	234,420	Nov. 16	741	200	18	1127
Nerney, Peter, Attleborough, Mass. Making curbed chains .....	229,742	July 6	264	75	18	47
Nesbitt, Josiah, Toronto, Ontario, assignor to M. Watson, Montreal, Quebec, Canada. Electric railway-semaphore .....	225,633	Mar. 16	768	226	17	610
Nesom, Thomas. (See Van Slyke and Nesom.)						
Netscher, Sebastian. (See Anderes, Jacob, assignor.)						
Nettleton, William A., Bridgeport, Conn. Corset .....	235,697	Dec. 21	788	222	18	1428
Neubert, Oscar, Newtown, N. Y. Making patterns or copies of statuary and other figures in wax .....	223,603	Jan. 13	480	129	17	96
Neuburger, Isidor, New York, N. Y. Show-box .....	231,346	Aug. 17	869	244	18	401
Neubaus, Karl F. W., Halberstadt, Germany. Spark-arrester .....	228,922	June 15	939	255	17	1387
Nevers, Jean L., Pass Christian, Miss. Water or wind mill .....	224,467	Feb. 10	568	163	17	316
Neville, George E., Metamora, Ind. Dust-pan .....	232,361	Sept. 21	594	163	18	637
Nevins, James A. (See Tullis, John W., assignor.)						
New, J. C., et al. (See Page, John W., assignor.)						
New, Tobias. (See Stewart, William H., assignor.)						
New American File Company. (See Fairbanks, Crawford M., assignor.)						
New Britain Knitting Company. (See Deunett and Holmes, assignors.)						
New Era Cotton Manufacturing Company. (See Wright, James, assignor.)						
Newby, Albert S., Champaign, Ill. Bottom grate for stoves .....	235,891	Dec. 28	1037	286	18	1477
Newcomb, Clay M. (See Hathaway, George M., assignor.)						
Newcomb, Erwin B., Cumberland Mills, Me. Rotary pump .....	226,773	Apr. 20	736	205	17	890
Newcomb, Erwin B., Cumberland Mills, Me., assignor to S. P. Warren, Boston, Mass. Machine for winding dry enameled paper .....	236,068	Dec. 28	1251	345	18	1512
Newcomb, James G., et al. (See Bastet, Louis, assignor.)						
Newell, Darius C., Yonkers, N. Y. Ground shavings .....	232,840	Oct. 5	56		18	748
Newell, George F., Greenfield, Mass. Sewing-machine shuttle .....	232,142	Sept. 14	313	68	18	583
Newell, John A., and A. Lucasse, Kalamazoo, Mich. Seating foot-valves in pumps. (Re-issue) .....	9,334	Aug. 3	303	86	18	297
Newell, John A., and A. Lucasse, Kalamazoo, Mich. Tubular well .....	226,185	Apr. 6	46	11	17	754
Newell, John H., assignor to himself and J. Walker, Scottville, Ill. Rotary engine .....	235,003	Nov. 30	1477	397	18	1261
Newell, Nelson C., et al. (See Clough, Francis W., assignor.)						
Newhall, Allen, Jersey City, N. J. Polishing-machine .....	224,214	Feb. 3	277	80	17	249
Newland, Sylvester F., assignor to himself and R. I. Krebs, Waynesfield, Ohio. Car-coupling .....	227,819	May 18	841	238	17	1135
Newlin, William, Attica, Ind. Making wheels .....	224,215	Feb. 3	278	80	17	250
Newlin, William, Attica, Ind. Vehicle-wheel .....	234,196	Nov. 9	457	124	18	1070
Newman, Abraham, New York, N. Y. Watchman's time-detector .....	227,641	May 18	641	183	17	1105
Newman, Charles E., Cedarville, Kans. Force-pump .....	233,006	Oct. 5	249	68, 69	18	779
Newman, Elmer P., Dimondale, Mich. Copy-book .....	235,448	Dec. 14	483	136	18	1370
Newman, Elmer P., Dimondale, Mich. Copy-book .....	236,070	Dec. 28	1253	346	18	1512
Newman, Isaac, New Haven, Conn. Corset .....	236,069	Dec. 28	1252	345	18	1512
Newman, John B. (See Harley, John, assignor.)						
Newman, Joseph, New York, N. Y. Button and stud .....	227,700	May 18	711	201	17	1115
Newton, Arthur, and T. Hibbard, Boston, Mass. Machine for separating and driving nails .....	230,648	Aug. 3	63	18	18	257
Newton, Daniel A., et al. (See Chaplin, Orril R., assignor.) (Reissue.)						
Newton, Edward S., East Saginaw, Mich. Steam-trap .....	228,833	June 15	844	230	17	1374
Newton, Franklin D., New York, N. Y. Manufacture of chair seats and backs .....	228,377	June 1	247	70	17	1267
Newton, George, Sterling, Ill. Harrow .....	226,414	Apr. 13	305	88	17	811
Newton, George, Sterling, Ill. Spring-bar for vehicles .....	226,415	Apr. 13	306	88	17	811
Newton, George L., Haverhill, Mass. Machine for burnishing the heels of boots and shoes .....	229,168	June 22	1229	334	17	1437
Newton, Isaac, Cleveland, Ohio. Die for making carriage-bolts .....	235,532	Mar. 16	655	191	17	589
Newton, Moses, Holyoke, Mass. Method and apparatus for calendering paper .....	229,551	July 6	54	15	18	16
Newton, Moses, assignor to Newton Paper Company, Holyoke, Mass. Paper for packing, lining, and other purposes .....	235,449	Dec. 14	483	136	18	1370
Newton, Moses, Holyoke, Mass. Method of and apparatus for corrugating paper .....	235,698	Dec. 21	789	222	18	1428
Newton Paper Company. (See Newton, Moses, assignor.)						
Newton, Richard, Cleveland, Ohio. Velocipede .....	231,347	Aug. 17	870	245	18	401
Newton, Robert, assignor of one-half interest to B. Collingham, Providence, R. I. Fuel-economizer .....	233,002	Oct. 5	245	67	18	778
Newton, Robert, assignor of one-half interest to B. Collingham, Providence, R. I. Grate .....	233,003	Oct. 5	245	68	18	779
Newton, Robert, assignor of one-half interest to B. Collingham, Providence, R. I. Steam-trap .....	233,004	Oct. 5	247	68	18	779
Newton, Stephen S., Binghamton, N. Y. Lamp .....	223,376	Jan. 6	190	50	17	35
Newton, Stephen S., Binghamton, N. Y. Oil-can .....	223,377	Jan. 6	191	50	17	35
Newton, Stephen S., Binghamton, N. Y. Bottle-stopper .....	223,531	Jan. 13	397	106	17	83
Newton, Stephen S., Binghamton, N. Y. Slate-washer .....	224,033	Feb. 3	68	21	17	215
Newton, Stephen S., Binghamton, N. Y. Bottle-stopper .....	225,298	Mar. 9	384	112	17	533
Newton, Stephen S., Binghamton, N. Y. Bottle-stopper .....	232,362	Sept. 21	595	163	18	637
Newton, Stephen S., Binghamton, N. Y. Oilier-nozzle .....	233,005	Oct. 5	248	68	18	779
Newton, Stephen S., Binghamton, N. Y. Lamp .....	235,642	Dec. 21	723	205	18	1416
Newton, William A., Pappinville, Mo. Post and pile driver. (Reissue) .....	9,119	Mar. 16	826	241	17	620
Newton, William A., Pappinville, Mo. Wire-fence builder. (Reissue) .....	9,120	Mar. 16	827	241	17	620
New York Improved Anthracite Coal Company. (See De Smedt, Edward J., assignor.) (Reissue.)						
New York Rubber Company. (See Chaskel, James, assignor.) (Reissue.)						
New York Sanitary Company. (See Rodgers, Samuel, assignor.)						
New York Screw Company. (See Greenleaf, Joseph H., assignor.)						
Nexnaber, Charles. (See Miller, Rudolph A., assignor.)						
Niblett, William C., and C. Bronk, Hudson, N. Y. Machine for upsetting tires .....	224,105	Feb. 3	156	44	17	229
Nichols, Andrew, assignor to himself and C. Grant, Jr., Boston, Mass. Shoe .....	230,649	Aug. 3	67	18	18	257
Nichols, Byron W. (See Austin and Nichols.)						

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Nichols, Ellen A., administratrix. (See Nichols, Francis.)						
Nichols, Francis, deceased, (E. A. Nichols, administratrix,) W. B. Manwaring, and O. L. Livesey, New London, Conn., assignors to Acid Pump and Siphon Company. Acid siphon-pump	231,841	Aug. 31	1446	{ 406 407 }	18	506
Nichols, Frederick W., and H. P. Lancaster, Lynn, Mass. Machine for blacking and burnishing the edges of seam-stays	235,557	Dec. 14	615	176	18	1392
Nichols, Howard P., Reading, Mass. Burnishing-machine	230,430	July 27	1123	315	18	205
Nichols, James B., Evening Shade, Ark. Cotton chopper and cultivator	225,856	Mar. 23	1033	297	17	663
Nichols, Moses O., Clyde, assignor of one-half interest to E. L. Mundy and G. Butt, Norwalk, Ohio. Musical reed-instrument	229,837	July 13	388	{ 107 108 }	18	73
Nichols, Moses O., Clydo, Ohio. Free-reed block	235,556	Dec. 14	615	176	18	1392
Nichols, Shepard & Co. (See Brown and Hoag, assignors.)						
Nichols, Thomas. (See Parker and Nichols.)						
Nichols, William A., et al. (See Steel, Robert, assignor.)						
Nicholson, Ezekiel. (See Joint and Nicholson.)						
Nicholson, Granville. (See Weber, Theodore A., assignor.)						
Nicholson, Granville, New York, N. Y. Wire-stretcher	229,449	June 29	1551	427	17	1491
Nicholson, Henry C., Kenton, Ky. Multiple telegraph	232,749	Sept. 28	1044	286	18	719
Nicholson, Henry C., Kenton, Ky. Quadruplex telegraph	234,197	Nov. 9	458	124	18	1071
Nicholson, Jeremiah J. (See Still, Francis N., assignor.)						
Nicholson, Joseph. (See Jones, Samuel W., assignor.)						
Nicholson, Michael, Baltimore, Md. Signal head-light	225,299	Mar. 9	385	113	17	533
Nicholson, W. H., et al. (See Smith, Robert P., assignor.)						
Nickerson & Brother. (See Nickerson, Robert S., assignor.)						
Nickerson, Fred. A., assignor to Dickinson Hard Rubber Company, Springfield, Mass. Ornamenting the surfaces of hard rubber with colors	235,644	Dec. 21	725	-----	18	1417
Nickerson, Robert S., assignor to Nickerson & Brother, Philadelphia, Pa. Felt hat	227,044	Apr. 27	1081	298	17	956
Nickerson, Sparrow M., and J. P. Tansey, Chicago, Ill.; said Tansey assignor to said Nickerson. Sash-lock	228,471	June 8	365	100	17	1295
Nickerson, Sparrow M., and J. P. Tansey, Chicago, Ill.; said Tansey assignor to said Nickerson. Sash-lock	228,472	June 8	366	100	17	1295
Nickum, Sylvanis B., Jalapa, Ind. Railway-switch lever	225,483	Mar. 16	599	174	17	580
Nickum, Sylvanis B., Jalapa, Ind. Railway-switch	226,342	Apr. 6	220	64	17	786
Nickum, Sylvanis B., Jalapa, Ind. Car-coupling	228,834	June 15	845	231	17	1374
Nicolai, John H. and W. F., Baltimore, Md. Coal-oil condensing and separating apparatus	224,037	Feb. 3	73	22	17	216
Nicolai, Pierre, Paris, France. Apparatus for distilling oils	225,635	Mar. 16	771	226	17	610
Nicolai, William F. (See Nicolai, John H. and W. F.)						
Nicoud, Arnold, New York, N. Y. Button and stud	229,169	June 22	1221	335	17	1437
Nienkirk, Isaiah, Brighton, Iowa. Churn	227,045	Apr. 27	1081	{ 298 299 }	17	956
Niles, Milton C., Oak Park, Ill. Reversible latch	227,642	May 18	643	183	17	1105
Niles, William F., Jersey City, N. J. Manufacturing buttons and other articles from fibrous material and powdered hoof	224,036	Feb. 3	72	-----	17	216
Niles, William F., Jersey City, N. J., assignor to W. L. Palmer, New York, N. Y. Machine for molding buttons or other articles	234,800	Nov. 23	1225	330	18	1212
Nilson, Nils, Maple Plain, Minn. Vehicle-spring	226,540	Apr. 13	462	130	17	835
Nimmo, Charles. (See Koeller and Nimmo.)						
Nimmo, Edward B., assignor, by mesne assignment, to W. Winthrop, Brooklyn, N. Y. Stylographic fountain-pen	226,924	Apr. 27	935	260	17	933
Nimmo, Edward B., assignor, by mesne assignment, to W. Winthrop, Brooklyn, N. Y. Stylographic fountain-pen	226,925	Apr. 27	936	260	17	933
Nimmo, George, assignor to himself and H. McDonald, Allegheny, Pa. Harrow-tooth	228,551	June 8	470	126	17	1310
Nims, Frederick C., Painesville, Ohio, assignor of one-half interest to C. C. Nash, Peoria, Ill. Railway-ticket	228,213	June 1	58	18	17	1236
Nishwitz, Frederick, Millington, N. J. Harrow and clod-crusher	225,634	Mar. 16	769	226	17	610
Nisonger, James A., Goshen, Ind. Top-joint for vehicles	232,748	Sept. 28	1043	286	18	719
Niswander, Jacob S., Oakland, Cal. Fishing-rod	230,650	Aug. 3	67	19	18	257
Niven, James B. (See Chamberlain, Blanchard, assignor.)						
Nixon, Francis M. (See Breon and Nixon.)						
Nobel, Alfred, Paris, France. Primer for blasting-charges	231,348	Aug. 17	870	245	18	401
Noble, Alfred H., assignor to Noble Brothers, New Milford, Conn. Composition button	234,322	Nov. 9	604	164	18	1095
Noble, Alfred H., assignor to Noble Brothers, New Milford, Conn. Composition button	235,277	Dec. 7	259	72	18	1324
Noble Brothers. (See Kellogg, Charles H., assignor.)						
Noble Brothers. (See Noble, Alfred H., assignor.)						
Noble, George H., Lowell, Mass. Spinning-spindle	224,216	Feb. 3	279	80	17	250
Noble, Harrison T., Clinton, Ill. Washing-machine	231,842	Aug. 31	1449	407	18	506
Noble, James R., assignor to M. Noble, Pittsburg, Pa. Cooking-vessel	229,450	June 29	1552	427	17	1491
Noble, Jay. (See Card and Noble.)						
Noblo, Moore. (See Noble, James R., assignor.)						
Noble, O. J., et al. (See Harmon, Edward W., assignor.)						
Noble, Orson J., et al. (See Knubley, John W., assignor.)						
Noble, Oscar W., assignor to himself and D. Goss, Wakefield, Mass. Heating-stove	225,484	Mar. 16	600	174	17	580
Nolan, Nicholas, New York, N. Y. Device for operating elevators by railway-cars	225,158	Mar. 2	201	56	17	491
Nolen, Stephen A., Searcy, Ark., assignor of two-thirds interest to J. A. and J. M. Huff. Strap for wagon-bodies	232,841	Oct. 5	57	16	18	748
Nolen, Stephen A., Searcy, Ark. Bridle	235,643	Dec. 21	724	205	18	1417
Noonau, John C., and G. W. Young, Philadelphia, Pa. Gas apparatus	234,198	Nov. 9	459	124	18	1071
Norcross, Edmund D., Everett, Mass. Cooking stove and range	230,889	Aug. 10	352	102	18	311
Norcross, Franklin A., Cleveland, Ohio. Carriage-top	235,892	Dec. 28	1038	287	18	1477
Norcross, Levi W., Fort Worth, Tex. Piano-forte tuning-pin lock	225,017	Mar. 2	39	12	17	463
Nordaby, William H., assignor of one-half interest to E. Rockefeller, Germantown, N. Y. Compound for removing paint and varnish	224,841	Feb. 24	1029	-----	17	418
Nordmann, Prosper. (See Lugrin, Henry A., assignor.)						
Norfolk, John R., Salem, Mass. Fluid-meter	225,018	Mar. 2	40	12	17	463
Norfolk and New Brunswick Hosiery Company. (See March, Alfred, assignor.)						
Norman, Andrew A., assignor of one-half interest to A. Lindgren, Corning, Iowa. Counter and heel protector	225,070	Mar. 2	112	31	17	475
Norrington, Henry H. (See Tavener, Robert W., assignor.)						
Norris, Albert N. and D. C., Rushville, Ind. Seeding-machine	233,111	Oct. 12	393	108	18	809
Norris, Charles E. (See Vermilyea and Norris.)						
Norris, Dewitt C. (See Norris, Albert N. and D. C.)						
Norris, George E. (See Langworthy and Norris.)						
Norris, Reuben H., Boston, Mass. Car-brake	231,081	Aug. 10	558	{ 157 158 }	18	345

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North, Abijah, Champlain, N. Y. Refrigerating-cover.....	227,290	May 4	226	67	17	1015
North, Albert H., assignor to J. D. Frary, Bridgeport, Conn. Carving-fork.....	233,539	Oct. 19	924	255	18	906
North, Charles F. (See Bruce, Norman H., assignor.)						
North & Co., O. B. (See Coggins, O. Chester, assignor.)						
North, John, assignor of one-half interest to G. M. Pratt, H. S. White, and N. G. Sherman, Middletown; said Sherman assignor to L. C. White, Waterbury, Conn. Type-distributing machine.....	226,623	Apr. 20	574	{ 160 161 162 }	{ 17 }	865
North & Judd Manufacturing Company, (See Wightman, John E., assignor.)						
North, Robert L., et al. (See Bullard, Charles W., assignor.)						
North, Stephen, Syracuse, N. Y. Ear-trumpet.....	227,178	May 4	103	30	17	995
North, William C., Cleveland, Ohio. Gasoline-burner.....	227,701	May 18	712	201	17	1115
North, William C., Cleveland, Ohio. Gasoline-stove.....	234,491	Nov. 16	826	220	18	1141
Norton, Charles L., New York, N. Y. Spring-clip for indexing books.....	231,349	Aug. 17	871	245	18	401
Norton, Corbin, Tuscarora, Nev. Pick.....	232,056	Sept. 7	216	59	18	560
Norton, Edward Q., Cleveland, Ohio. Ballot-box.....	228,105	May 25	1192	339	17	1203
Norton, Edwin, Chicago, Ill. Canister.....	227,046	Apr. 27	1082	299	17	956
Norton, Edwin, Chicago, Ill. Can-soldering apparatus.....	232,409	Sept. 21	651	179	18	646
Norton, Edwin, Chicago, Ill. Soldering-can.....	233,688	Oct. 26	1117	{ 311 312 }	{ 18 }	948
Norton, Edwin, Chicago, Ill. Can.....	235,278	Dec. 7	259	72	18	1324
Norton, Edwin, Chicago, Ill. Can.....	235,279	Dec. 7	260	73	18	1324
Norton, Edwin, Chicago, Ill. Sheet-metal cover for cans.....	235,280	Dec. 7	261	73	18	1324
Norton, Enoch B., Hartford, N. Y. Sprinkler.....	224,944	Feb. 24	1137	325	17	436
Norton, Eugene E., assignor of one-half interest to W. S. Ross, Jr., Hartford, Conn. Pencil-sharpener.....	228,923	June 15	940	256	17	1388
Norton, George P., Somerville, assignor to A. T. Huff, Neshanic, N. J. Meat-chopper.....	231,187	Aug. 17	695	195	18	373
Norton, Henry H., Chicago, Ill. Curry-comb.....	230,890	Aug. 10	355	102	18	312
Norton, James L., Buffalo Mills, Pa. Grain-drier.....	224,217	Feb. 3	280	81	17	250
Norton, Lewis C., Boston, Mass. Door-check.....	228,776	June 15	768	211	17	1364
Norton, Richard D., assignor to W. R. Norton, Hightstown, N. J. Horse-power attachment.....	226,671	Apr. 20	631	176	17	873
Norton, William R. (See Norton, Richard D., assignor.)						
Norwood, Cyrus, Winters, Cal. Galvanic belt.....	224,717	Feb. 17	855	244	17	375
Nosker, Samuel F., Iroquois, Ill. Grain-drill attachment.....	227,047	Apr. 27	1083	299	17	957
Notson, Justin. (See Henderson and Notson.)						
Nott, Gardner G., West Point, Wis. Colter.....	233,793	Oct. 26	1233	343	18	968
Noyes, Charles, and R. J. White, Chicago, Ill. Moth and insect proof carpet-lining and merchandise-packing.....	230,891	Aug. 10	356	103	18	312
Noyes, George E., Washington, D. C., assignor, by mesne assignment, to N. C. and A. C. Locke, Salem, Mass. Steam-governor. (Reissue).....	9,196	May 11	598	171	17	1087
Noyes, Joseph P., Binghamton, N. Y. Box.....	234,323	Nov. 9	605	165	18	1096
Noyes, Josiah H., deceased, assignor to Dover Stamping Company, Boston, Mass. Nozzle-stopper for oil-cans. (Reissue).....	9,398	Oct. 5	321	89	18	791
Noyes, La Verne W., Chicago, Ill. Hay-carrier.....	229,170	June 22	1222	335	17	1437
Noyes, Person, Lowell, Mass. Gas-pressure regulator.....	234,421	Nov. 16	742	201	18	1127
Noyes, Walter B., Boston, Mass. Curtain-roller.....	225,857	Mar. 23	1034	298	17	663
Nugent, Edward, and D. Tilton, Brooklyn, N. Y. Machine for threading wood-screw blanks.....	233,366	Oct. 19	724	198	18	873
Nunan, Edward, San Francisco, Cal. Endless-chain saw.....	226,774	Apr. 20	737	206	17	890
Nunan, Edward, San Francisco, Cal. Scroll-sawing machine.....	229,908	July 13	463	128	18	86
Nunns, John P., and F. M. Clough, West Cheshire, Conn. Water-gage.....	231,350	Aug. 17	872	245	18	402
Nuttall, John, et al. (See Gowland, John, assignor.)						
Nuthmann, Theodore, assignor to himself and O. Dierking, Brooklyn, N. Y. Spring-soled boot and shoe.....	226,541	Apr. 13	463	131	17	835
Nye, Charles H., assignor of one-fifth interest to T. E. Green, New York, N. Y. Sash-fastening.....	229,451	June 29	1553	428	17	1491
Oakley, E. Benedict, et al. (See Martin, Joel W. W., assignor.)						
Oakley, Jesse, et al. (See Martin, Joel W. W., assignor.)						
Oakley, John A., et al. (See Martin, Joel W. W., assignor.)						
Oakley, Thomas. (See Burbridge, Thorpe, and Oakley.)						
Oatman, Charles D., Providence, R. I. Life-preserver.....	234,606	Nov. 16	979	260	18	1166
Obenchain, Thomas J., Logansport, Ind. Grinding-mill.....	234,199	Nov. 9	461	125	18	1071
Ober, Joseph A., et al. (See Piersons, Charles S., assignor.) (Reissue.)						
Ober, Philip E., Beverly, Mass. Well for water-main taps. (Reissue.).....	9,510	Dec. 21	975	270	18	1460
Oberholzer, Jacob S., Wadsworth, Ohio. Revolving hay-rake.....	224,718	Feb. 17	856	244	17	376
Oberlein, Ludwig. (See Lederle and Oberlein.)						
Obert, Francis J. (See Saunders, John, assignor.)						
O'Brien, Dennis, Oswayo, Pa. Bark-mill.....	234,324	Nov. 9	606	165	18	1096
O'Brien, Dennis C., Hornellsville, N. Y. Trace-fastener.....	235,099	Dec. 7	41	13	18	1288
O'Brien, John W. (See Palmer, Richard P., assignor.)						
O'Brien, Patrick P., Summit, N. J. Thill-coupling.....	224,218	Feb. 3	281	81	17	250
O'Brien, Patrick P., Summit township, Union county, and J. F. Splan, Milburn township, Essex county, N. J. Fancet.....	229,743	July 6	265	75	18	47
O'Bryan, John W., Petersburg, Ill. Coating and finishing walls.....	230,043	July 13	616	171	18	109
O'Connell, Nicholas. (See Tice and O'Connell.)						
O'Connell, William H., Baltimore, Md. Watchman's time-check.....	230,565	July 27	1271	359	18	230
O'Connor, Christian L. (See Moloney, John, assignor.)						
O'Connor, Charles H., Brooklyn, N. Y. Manufacture of non-inflammable paper.....	225,858	Mar. 23	1035	.....	17	663
O'Connor, James, Jackson, Mo., assignor of one-half to H. R. English. Spring-seat for vehicles.....	233,689	Oct. 26	1118	312	18	948
Odell, Thomas L., Iowa Falls, Iowa, assignor of one-half interest to G. W. Straight, Chicago, Ill. Bed-frame.....	226,099	Mar. 30	1340	{ 377 378 }	{ 17 }	724
O'Doherty, George J. (See Soare, William E., assignor.)						
O'Donel, Irwin M., assignor of one-half interest to W. J. Fullerton, Pittsburg, Pa. Manufacture of glass and other molds.....	226,873	Apr. 27	873	243	17	923
O'Donel, Irwin M., assignor of one-half interest to W. J. Fullerton, Pittsburg, Pa. Adjustable center for cutting soap, &c.....	227,643	May 18	644	181	17	1105
O'Donel, Irwin M., Pittsburg, Pa. Package-wrapping machine.....	231,444	Aug. 24	977	{ 275 276 }	{ 18 }	426
O'Donoghue, John T., New York, N. Y. Ratchet-regulator for transoms, &c.....	225,761	Mar. 23	933	270	17	646
Oefinger, Michael, West Meriden, Conn. Harmonica.....	235,281	Dec. 7	262	73	18	1324
Oesterlein, Wilhelm, Cincinnati, Ohio. Friction-clutch.....	228,552	June 8	471	127	17	1310
Oesterlein, Wilhelm, Cincinnati, Ohio. Friction-clutch.....	235,558	Dec. 14	617	176	18	1392
Oeth, John P., Canton, Mo. Heating-stove.....	225,234	Mar. 9	299	86	17	520
Oexle, Oscar, Augsburg, Bavaria, Germany. Apparatus for purifying grain, &c.....	225,859	Mar. 23	1036	298	17	663



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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Officer, William E., assignor to O. M. Beall and J. B. Anderson, Mendon, and J. A. J. Metzger, Centreville, Mich. Shoe	229,172	June 22	1224	336	17	1435
Officer, James, Ashland, Ohio, assignor, by mesne assignments, to H. Holt & Co., Farmington, Me. Hay-knife. (Reissue).	9,335	Aug. 3	304	86	18	297
Ogborn, Charles H., Audubon, Iowa. Wagon-brake lever	232,363	Sept. 21	596	164	18	637
Ogborn, Harrison, Richmond, Ind. Cabinet folding bed	224,842	Feb. 24	1030	{ 293 294 }	17	418
Ogborn, Harrison, Richmond, assignor of one-half interest to S. Watson, Dublin, Ind. Washing-machine	230,714	Aug. 3	137	40	18	269
Ogden, Ferris, and H. M. Weaver, Mansfield, Ohio. Grain-binder	232,201	Sept. 14	385	{ 107 108 109 }	18	595
Ogle, Joseph D., assignor to himself and R. A. Burnett, Washington Court-House, Ohio. Steam-boiler	225,159	Mar. 2	202	57	17	491
O'Gorman, James. (See Woodhill and O'Gorman.)						
O'Harra, David J., and D. Feit, Redding, Cal. Ore-feeder	224,946	Feb. 24	1140	326	17	437
Ohio Coal Mining Auger Company. (See Siprell, Darins W., assignor.)						
Ohlson, Andrew, Cantrall, Ill. Horse-detacher	227,821	May 18	843	239	17	1136
Ohmer, John F., Dayton, assignor to Willcox, Treadway & Co., Cleveland, Ohio. Caster	230,191	July 20	802	227	18	148
O'Keefe, John, assignor to Excelsior Manufacturing Company, St. Louis, Mo. Molding stove-lid bowls, &c.	226,672	Apr. 20	632	176	17	873
O'Lally, Patrick K., Boston, Mass. Shutter-worker	231,677	Aug. 31	1251	352	18	475
Olcott, John D., Ypsilanti, Mich. Catarrh remedy	236,071	Dec. 28	1254		18	1512
Olcott, Joseph H., Millstone, N. J. Lawn-mower	223,750	Jan. 20	651	175	17	133
Olcott, Joseph H., Millstone, N. J. Lawn-mower	227,048	Apr. 27	1084	{ 299 300 }	17	957
Old, James L., Allegheny, Pa. Water-conductor and joint	233,690	Oct. 26	1119	312	18	948
Old Colony Iron Company. (See Robinson, Enoch, assignor.)						
Old Dominion Manufacturing Company. (See Umstadter, Michael, assignor.) (Reissue.)						
Older, William H., Packwaukee, Wis. Construction of buildings	236,072	Dec. 28	1254	346	18	1512
Oldfield, Edwin. (See Raughtigan and Oldfield.)						
Oldham, Joshua, New York, N. Y. Saw	233,008	Oct. 5	253	69	18	780
Olds, Charles W. (See Olds, Francis A. and C. W.)						
Olds, Francis A. and C. W., Martinsville, Ind. Dust arrester and conveyer for thrashing-machines	226,344	Apr. 6	222	64	17	786
Oley, Nickolas, assignor of one-half to C. Lagler, Indianapolis, Ind. Horse-holding device for vehicles	235,282	Dec. 7	263	73	18	1324
Offenius, Gustav, Castel, near Mentz, Germany. Blow-off apparatus for locomotives, &c.	223,604	Jan. 13	480	130	17	96
Olin, Charles J., Mason, Mich. Chuck	235,283	Dec. 7	264	74	18	1324
Olin, William F., Chicago, Ill. Harvester	223,812	Jan. 27	741	{ 199 200 }	17	158
Olinger, Joel D., Water Valley, Miss. Fence	232,540	Sept. 21	804	222	18	672
Oliver, Ebenezer, New York, N. Y. Riddle and sieve	234,605	Nov. 16	977	260	18	1166
Oliver, Frederick M., Gaines Station, Mich. Car-coupling	226,186	Apr. 6	46	12	17	754
Oliver, George, London, England. Apparatus for use in theatrical performances	233,273	Oct. 12	584	161	18	842
Oliver, George, London, England. Apparatus for use in theatrical and gymnastic performances	233,274	Oct. 12	585	161	18	842
Oliver, George, City Road, county of Middlesex, England. Apparatus for use in theatrical and other performances	233,540	Oct. 19	925	255	18	906
Oliver, George, City Road, county of Middlesex, England. Apparatus for use in gymnastic and other performances	233,541	Oct. 19	926	255	18	906
Oliver, James, South Bend, Ind. Plow-point	223,751	Jan. 20	652	175	17	133
Olmstead, Chauncey L., West Brookfield, Mass. Corset	230,806	Aug. 3	239	69	18	286
Olmsted, Henry A., Oakland, Cal. Gang-plow	230,192	July 20	803	227	18	148
Olmsted, Ira B., Charleston, Ill. Steam-cooker	231,606	Aug. 24	1161	325	18	454
Olmsted, Kingsley R., Chicago, Ill. Reaction propeller-wheel	230,566	July 27	1273	359	18	231
O'Loughlin, John, Baltimore, Md. Can-soldering machine	235,004	Nov. 30	1479	{ 397 398 }	18	1261
Olsen, Andreas, Ephraim, Utah Ter. Construction of steam-vessels	226,542	Apr. 13	464	131	17	835
Olsen, Tinius, Philadelphia, Pa. Testing-machine	228,214	June 1	59	18, 19	17	1237
Olson, John A., Red Wing, Minn. Grain-separator	224,220	Feb. 3	283	82	17	250
Olson, John A., Vasa, assignor of one-half interest to L. F. Hubbard, Red Wing, Minn. Sieve for grain-separators	232,751	Sept. 28	1047	287	18	720
Oltz, Frederick E., Lincoln, assignor of one-half to C. H. Robinson, Logan County, Ill. Lip and bail attachment for jugs	235,284	Dec. 7	266	74	18	1325
Onderdonk, Lansing, Adams' Station, assignor of one-half interest to C. C. Brown; said Brown assignor of fifteen one-hundredths interest to H. P. Wells, Brooklyn, N. Y. Automatic reversible clutch	231,843	Aug. 31	1450	407	18	507
Onderdonk, Lansing, Adams' Station, assignor of one-half interest to C. C. Brown; said Brown assignor of fifteen one-hundredths interest to H. P. Wells, Brooklyn, N. Y. Ruffing and plaiting attachment for sewing-machines	231,844	Aug. 31	1452	{ 498 409 }	18	507
O'Neil, John. (See Conlan and O'Neil.)						
O'Neil, John K., Troy, N. Y. Ironing-machine	230,961	Aug. 10	425	123	18	323
O'Neil, John K., Troy, N. Y. Ironing-machine	233,007	Oct. 5	251	69	18	779
O'Neill, Bartholomew J., Uxbridge, Ontario, Canada. Machine for planting seed-potatoes	233,635	Oct. 26	1059	295	18	938
O'Neill, Edward, Mitchell's Mills, Pa. Stump-extractor	232,614	Sept. 28	891	246	18	693
O'Neill, Eugene, San Francisco, Cal. Valve-motion and cut-off	227,918	May 25	977	280	17	1168
O'Neill, Hugh, et al. (See Herzberg, Moritz, assignor.)						
O'Neill, Mary, et al. (See Herzberg, Moritz, assignor.)						
O'Neill, Samuel, Eccles, county of Lancaster, England. Loom	236,073	Dec. 28	1255	{ 346 347 }	18	1513
Onellette, Joseph. (See Howe, Solon G., assignor.)						
Opdyke, Stacy B., assignor to S. W. Lambeth, Philadelphia, Pa. Fly-fan	225,413	Mar. 9	512	147	17	555
Open Stove Ventilating Company. (See Morgan and Morrison, assignors.)						
Oppenheim, Frederick, San Francisco, Cal. Vehicle-seat. (Reissue)	9,464	Nov. 16	1024	274	18	1174
Ordway, Albert H., Groveland, assignor to L. E. Hastings, Haverhill, Mass. Rotary chair	225,160	Mar. 2	202	57	17	491
O'Reilly, Bernard. (See Hughes, William, assignor.)						
O'Reilly, Philip. (See Wilson and O'Reilly.)						
Orelle, Julien, Ainé, and F. Pichon, Lyons, France. Method and means of preparing paper for beaming woven fabrics	227,381	May 11	350	102	17	1045
Orme, Alexander. (See Todd and Orme.)						
Ormsbec, Edwin L., Cleveland, Ohio. Substance for mounting stuffed birds, &c.	227,291	May 4	227		17	1015
Ormsby, Waterman L., Brooklyn, N. Y. Spring-roller	233,429	Oct. 19	801	221	18	885
Ormsby, William J., Cincinnati, Ohio. Carbureting apparatus	234,055	Nov. 2	280	77	18	1032

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Orphy, John W., assignor to C. T. Ham and F. D. W. Clarke, Rochester, N. Y. Lantern .....	229,330	June 29	1416	388	17	1472
Orphy, John W., assignor to C. T. Ham and F. D. W. Clarke, Rochester, N. Y. Elbow-joint..	229,331	June 29	1417	388	17	1472
Orphy, John W., assignor to C. T. Ham and F. D. W. Clarke, Rochester, N. Y. Lantern .....	229,452	June 29	1554	428	17	1491
Orr, James L. (See Connor and Wadsworth, assignors.)						
Orr, James P. (See McCaw, Stevenson, and Orr.)						
Orr, William M., assignor to Crystal Burial Case Company, Orrville, Ohio. Coffin .....	235,376	Dec. 14	393	108	18	1354
Orrick, Nicholas C., Canton, Miss. Plow .....	228,835	June 15	846	231	17	1375
Orrick, Nicholas C., Canton, Miss. Plow .....	233,795	Oct. 26	1236	344	18	969
Orvis, Orel D., Chicago, Ill. Sound-articulator .....	227,644	May 18	645	184	17	1105
Orvis, Orland D., Chicago, Ill. Steam-boiler and other furnaces .....	223,238	Jan. 6	36	9	17	9
Orwig, Thomas G., Des Moines, Iowa. Barbed fence .....	225,717	Mar. 23	876	257	17	638
Orwig, Thomas G., Des Moines, Iowa. Fence-post .....	227,990	May 25	1068	304	17	1183
Orwig, Thomas G., Des Moines, Iowa. Fence-post .....	233,871	Nov. 2	52	14	18	996
O'Ryan, Frank, New York, N. Y. Apparatus for illustrating the rules of perspective drawing .....	224,945	Feb. 24	1139	326	17	436
Osberghaus, Charles. (See Kolb and Osberghaus.)						
Osborn, Francis A., trustee. (See Sweney, Thomas, assignor.) (Reissue.)						
Osborn, Francis M., Port Chester, N. Y. Horse-blanket .....	233,275	Oct. 12	586	162	18	843
Osborn, Gustavus H. (See Williams and Osborn.)						
Osborn, Henry E., assignor to Meriden Silver Plate Company, Meriden, Conn. Ice-pitcher.	228,106	May 25	1193	339	17	1203
Osborn, Joseph. (See Knox and Osborn.)						
Osborn, Oliver S., assignor to English & Mersick, New Haven, Conn. Sash-holder .....	229,005	June 22	1053	286	17	1412
Osborn, Oliver S., assignor to English & Mersick, New Haven, Conn. Carriage-curtain-roller support .....	231,237	Aug. 17	756	211	18	382
Osborne, Aaron, Georgetown, Conn. Provision-safe .....	230,195	July 20	806	228	18	149
Osborne, David M. (See Kirby, William A., assignor.) (Reissue.)						
Osborne, Emma J., Easley, S. C. Baggage attachment for vehicles .....	223,378	Jan. 6	192	51	17	35
Osborne, Emma J., Anderson Court-House, S. C. Baggage attachment for vehicles .....	228,924	June 15	940	256	17	1388
Osborne, John H., Philadelphia, Pa. Cutting attachment for sewing-machines .....	224,219	Feb. 3	252	81	17	250
Osborne, John H., Auburn, N. Y. Steam-heater .....	230,193	July 20	804	227	18	148
Osborne, John M., Penn Yan, N. Y. Steam-generator .....	226,343	Apr. 6	220	64	17	786
Osborne, Thomas B., New Haven, Conn., assignor of one-half interest to K. Smith, New York, N. Y. Middlings-purifier .....	224,719	Feb. 17	857	{ 244 245 }	{ 17 17 }	{ 376 376 }
Osborne, William D., assignor of one-half interest to A. B. Sloanaker, Philadelphia, Pa. Producing, embellishing, and retouching photo-negatives .....	228,380	June 1	250	.....	17	1267
Osborne, Wilbur F., Ansonia, Conn. Weaving suspender-strap webbing .....	234,056	Nov. 2	281	77	18	1033
Osenbrück, Adolph. (See Osenbrück, Wilhelm, A., and A.)						
Osenbrück, August. (See Osenbrück, Wilhelm, A., and A.)						
Osenbrück, Johannes A., Hemelingen, near Bremen, Prussia, Germany. Bearing .....	229,171	June 22	1223	{ 335 336 }	{ 17 17 }	{ 1438 1438 }
Osenbrück, Wilhelm, A., and A., Hemelingen, near Bremen, Prussia, Germany. Cigar-} mold press .....	235,005	Nov. 30	1481	{ 398 399 }	{ 18 18 }	{ 1262 1262 }
Osgood, Charles W., Indianapolis, Ind. Cartridge-loader .....	235,699	Dec. 21	790	222	18	1428
Osgood, Enoch, Brooklyn, N. Y. Toothpick .....	234,422	Nov. 16	745	201	18	1127
Osgood, Enoch, Brooklyn, N. Y. Device for canceling stamps .....	236,074	Dec. 28	1256	347	18	1513
Osgood, Herman D. (See Osgood, James M., assignor.)						
Osgood, Herman D., et al. (See Osgood, Pelatiah, assignor.)						
Osgood, James M., et al. (See Osgood, Pelatiah, assignor.)						
Osgood, James M., assignor of one-half to H. D. Osgood, Somerville, Mass. Curtain-fixture .....	235,560	Dec. 14	618	177	18	1393
Osgood, John L., New Britain, Conn. Cartridge-loader .....	231,445	Aug. 24	980	276	18	426
Osgood, Josiah A., Grantville, Mass. Metallic packing for piston-rods .....	226,624	Apr. 20	579	162	17	865
Osgood, Josiah A., Grantville, Mass., and E. P. Monroe, New York, N. Y. Stuffing-box .....	234,325	Nov. 9	607	{ 165 166 }	{ 18 18 }	{ 1096 1096 }
Osgood, Josiah A., Grantville, Mass., and E. P. Monroe, New York, N. Y. Stuffing-box .....	234,326	Nov. 9	608	166	18	1096
Osgood, Josiah A., Grantville, Mass., and E. P. Monroe, New York, N. Y. Metallic packing .....	234,327	Nov. 9	609	166	18	1096
Osgood, Pelatiah, Waterville, Me., assignor of two-thirds interest to H. D. and J. M. Osgood, Somerville, Mass. Curtain-fixture .....	232,898	Oct. 5	123	33	18	758
Osgood, Pelatiah, Waterville, Me., assignor of two-thirds interest to H. D. and J. M. Osgood, Somerville, Mass. Spring curtain-fixture .....	235,559	Dec. 14	618	177	18	1393
Osgood, Ralph R., Troy, N. Y. Excavating and dredging machine .....	226,874	Apr. 27	874	{ 243 244 }	{ 17 17 }	{ 924 924 }
Osik, Jacob. (See Kryzinski, Anastasius, assignor.)						
Osselin, Eugène A., and A. Meyer, Paris, France. Galvanic ring .....	230,194	July 20	806	227	18	149
Osterhout, Abram, Wayland, assignor of one-half interest to W. S. Crippen, Grand Rapids, Mich. Car-coupling .....	230,044	July 13	616	171	18	109
Ostrander, William R., New York, N. Y. Speaking-tube mouth-piece and bell-lever .....	235,285	Dec. 7	267	74	18	1325
Oswald, Richard W. (See Stackhouse, William H., assignor.)						
Otis Brothers & Co. (See Smith, George E., assignor.)						
Otis, Charles R., New York, N. Y. Elevator .....	226,100	Mar. 30	1341	378	17	725
Otis, Charles R., Yonkers, N. Y. Elevator .....	228,107	May 25	1193	340	17	1203
Otis, Charles R., Yonkers, N. Y. Elevator .....	233,794	Oct. 26	1235	343	18	969
Otis, Charles R. and N. P., Yonkers, N. Y. Hoisting apparatus. (Reissue.) .....	9,128	Mar. 23	1099	313	17	674
Otis, Charles R. and N. P., Yonkers, N. Y. Elevator .....	226,673	Apr. 20	633	176	17	873
Otis, Daniel C., New York, N. Y. Filter .....	229,744	July 6	267	75	18	47
Otis, Norton P. (See Otis, Charles R. and N. P.) (Reissue.)						
Otis, Norton P. (See Otis, Charles R. and N. P.)						
Otis, Samuel A. (See Parker, Ephraim, assignor.)						
Otis, Samuel A., Somerville, Mass. Railway-track scraper. (Reissue.) .....	9,445	Nov. 2	348	96	18	1045
Otis, Samuel L., Birmingham, Conn. Attaching buttons to cards .....	232,057	Sept. 7	217	59	18	560
Ott, Louis W., Indianapolis, Ind. Bedstead-lounge .....	235,006	Nov. 30	1452	399	18	1262
Ottwell, John D., New York, N. Y. Fire-proof ceiling .....	231,351	Aug. 17	873	246	18	402
Otto, Christian F., Zerbst, Germany. Lock .....	228,379	June 1	249	70	17	1267
Otto, Ferdinand, Springfield, Ohio. Eaves-trough hanger .....	227,702	May 18	713	202	17	1115
Otto, Gustav, Jersey City, N. J., assignor to Celluloid Manufacturing Company, New York, N. Y. Manufacture of bougies, stomach-pumps, and other surgical instruments from celluloid, &c. ....	235,958	Dec. 28	1125	.....	18	1491
Otto, Gustav, Jersey City, N. J., assignor to Celluloid Manufacturing Company, New York, N. Y. Manufacture of pessaries from celluloid, &c. ....	235,959	Dec. 28	1126	310	18	1491
Onalline, Edward N., Hockley, Tex. Wheel-hub .....	235,450	Dec. 14	484	137	18	1370
Ontcalt, Jesse P., and L. Kissner, assignors to Hocking Valley Manufacturing Company, Lancaster, Ohio. Feed-regulator for grain-drills .....	233,009	Oct. 5	253	70	18	780
Outerbridge, Thomas H., Hamilton, Bermuda. Hub lock .....	234,801	Nov. 23	1227	330	18	1212
Ovens, Thomas C. (See Ovens, William and T. C.)						

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Ovens, Walter S. (See Hill, George J., assignor.)						
Ovens, Walter S., Buffalo, N. Y. Cake-machine	230,431	July 27	1124	316	18	205
Ovens, William and T. C., Clerkenwell, England. Meat-mincing machine	235,561	Dec. 14	619	{ 177 178 }	18	1393
Over, Ewald. (See Dawson, George W., assignor.)						
Over, Ewald. (See Schiffing, Albert, assignor.)						
Over, Ewald, Indianapolis, Ind. Water-filter	235,893	Dec. 28	1039	287	18	1477
Overshiner, Gideon J., San José, Cal. Wheel-hub	235,007	Nov. 30	1483	399	18	1262
Overstreet, William, Belton, Tex. Velocipede	225,760	Mar. 23	932	270	17	646
Oviatt, Clarence C., assignor of one-half interest to L. Davis, Milton Junction, Wis. Washing-machine	230,146	July 20	753	210	18	140
Ovington, Edward J., Jr., Chicago, Ill. Device for exhibiting crockery	223,239	Jan. 6	37	9	17	9
Owen, Benjamin, Dayton, Ohio. Horse-rake	225,716	Mar. 23	875	256	17	638
Owen, Daniel C., La Prairie, Ill. Coupling-joint for cultivator-teeth	223,752	Jan. 20	653	176	17	133
Owen, Henry, London, England. Water-closet	230,651	Aug. 3	68	19	18	257
Owen, Richard W., assignor to himself, G. Lanz, and C. A. Whitney, Chicago, Ill. Leather-punching machine	229,631	July 6	137	33, 39	18	29
Owen, Silas R. (See Harbaugh and Owen.)						
Owen, Silas R. (See Mahan and Owen.)						
Owen, William P., Mount Pleasant, Tenn. Fire-screen	227,568	May 11	555	159	17	1080
Owen, William S., assignor of one-half interest to A. Cox and A. E. Kent, Washington, D. C. Fluting-iron	226,776	Apr. 20	739	206	17	891
Owen, William S., Washington, D. C. Sash-fastener	231,352	Aug. 17	873	246	18	402
Owen, Wilson L., Talbotton, Ga. Cotton-seed crusher	226,775	Apr. 20	738	206	17	891
Owens, John L. (See Jones and Owens.)						
Owens, M. Miller. (See Pullinger, George B., assignor.)						
Owens, Thomas W., Granville, Ohio. Farm-fence	232,750	Sept. 28	1046	287	18	719
Owens, Will E., Bon Homme, Dak. Ter. Self-waiting table	223,295	Jan. 6	111	27	17	20
Owens, William J. (See Goodenow and Owens.)						
Owaby, James M. (See Owaby, James P. and J. M.)						
Owaby, James P. and J. M., Union City, Tenn. Shaft-coupling	227,292	May 4	228	67	17	1015
Oxley & Giddings. (See Brown, John F., assignor.)						
Paar, John, New York, N. Y. Lifting-jack	232,541	Sept. 21	804	223	18	672
Pace, Edmund M., et al. (See Stephens, Dabney B., assignor.)						
Pace, Robert G., et al. (See Stephens, Dabney B., assignor.)						
Packard, Henry F., Brockton, Mass., assignor to A. L. Bogart, Jamaica, N. Y. Electric gas-lighting device	225,071	Mar. 2	113	32	17	475
Packer, Charles W., Philadelphia, Pa. Ice-cream freezer	223,753	Jan. 20	654	176	17	133
Packer, Daniel F., Mystic River, Conn. Harness	229,176	June 22	1227	337	17	1438
Packham, Frank R., Mechanicsburg, assignor to J. B. Van Doren, Fremont, Ohio. Pipe-crimping machine	225,636	Mar. 16	771	227	17	611
Padden, James P. (See Padden, John J., assignor.)						
Padden, John J., assignor of one-half interest to J. P. Padden, Chicago, Ill. Brake-lever	232,410	Sept. 21	652	{ 179 180 }	18	646
Padden, John J., assignor of one-half interest to J. P. Padden, Chicago, Ill. Car-coupling	232,411	Sept. 21	653	180	18	647
Paddock, William R., Cincinnati, Ohio. Street-sprinkler	227,569	May 11	556	159	17	1080
Padgett, William B., Batesville, Ark. Cotton-press	231,926	Sept. 7	55	13, 14	18	533
Padgett, Tom, Waco, Tex. Combined hook and buckle	223,532	Jan. 13	398	106	17	83
Padon, John S., Lebanon, Ill. Farm-gate	223,944	Jan. 27	903	240	17	183
Pafford, John R., Cuero, Tex. Bed-bottom	230,045	July 13	617	172	18	100
Pagan, Orestes, Philadelphia, Pa. Safety automatic railway-switch	229,745	July 6	268	75, 76	18	48
Page, Charles E., Biddeford, Me. Hand-mirror	229,909	July 13	464	129	18	86
Page, Charles W., assignor of one-half interest to J. P. Williams and P. Griesinger, Arena, Wis. Harrow	228,382	June 1	252	71	17	1267
Page, Clark D. (See Page, William A., assignor.)						
Page, Erasmus E., Marshalltown, Iowa. Lactometer	230,330	July 20	969	275	18	174
Page, George S., Stanley, assignor of one-half interest to F. J. Mather, Morristown, N. J. Carpet-lining	225,718	Mar. 23	878		17	638
Page, George S., Stanley, N. J. Manufacture of and material for roofing, &c	230,148	July 20	755		18	140
Page, James B. F., Beloit, Kans. Metallic basket	232,752	Sept. 28	1048	287	18	720
Page, John W., assignor of one-half to J. C. New, J. A. Jones, and H. A. Wiley, Woodbury, Tenn. Car-coupling	234,685	Nov. 23	1088	292	18	1190
Page, Levi H., assignor of one-half to J. H. Frerik, Chicago, Ill. Fruit and egg carrier	234,141	Nov. 9	385	106	18	1058
Page, T. C. (See Hadley, George W., assignor.)						
Page, Thomas S., Chicago, Ill. Carpet-sweeper	229,174	June 22	1226	337	17	1438
Page, William A., Rochester, N. Y., assignor of three-fourths interest to C. D. Page, Limestone Springs, S. C. Limestone kiln	227,872	May 18	899	{ 256 257 }	17	1146
Page, William C., et al. (See Sholes, Frederick, assignor.)						
Page, William H. B., Delaware, Ohio. Windmill	223,379	Jan. 6	193	51	17	35
Page, William L., Boston, Mass. Elevator	228,473	June 8	368	101	17	1295
Pagett, George W., Oxford, Ind. Inkstand	232,292	Sept. 14	497	139	18	615
Pagliughi, John, New York, N. Y., and J. Ardito, Hoboken, N. J. Stereoscope	232,649	Sept. 28	929	256	18	700
Paige, William H., Springfield, Mass. Dumping-car	233,542	Oct. 19	928	256	18	907
Paine, George C., assignor of one-half interest to E. H. Mahoney, Boston, Mass. Child's high chair	226,345	Apr. 6	222	64	17	786
Paine, Ira A., New York, N. Y. Ball-trap. (Reissue)	9,042	Jan. 13	514	139	17	102
Paine, Seth W., Rochester, N. Y. Shot-cartridge	233,946	Nov. 2	137	37	18	1009
Painter, William, assignor of one-half interest to L. R. Keizer, Baltimore, Md. Soldering-tool	223,533	Jan. 13	399	106	17	83
Painter, William, Baltimore, Md. Marking plug-tobacco	234,608	Nov. 16	980	261	18	1167
Pairpoint, Thomas J., New Bedford, Mass. Butter-dish	232,842	Oct. 5	58	16	18	748
Pairpoint, Thomas J., New Bedford, Mass. Pin-holder	233,874	Nov. 2	55	15	18	996
Paisley, David S., Cleveland, Ohio. Bottle-stopper	233,796	Oct. 26	1237	344	18	969
Palmer, Benjamin, Chicago, Ill. Life-preserving mattress	228,671	June 8	608	163	17	1331
Palmer, Benjamin, Chicago, Ill. Mechanism for propelling vessels	234,607	Nov. 16	980	260	18	1167
Palmer, Cassius C., San Francisco, Cal. Ice-making apparatus	227,703	May 18	714	202	17	1116
Palmer, Chauncey, Utica, N. Y., assignor to himself and E. P. Palmer, Chicago, Ill. Clothes-drier	235,008	Nov. 30	1484	400	18	1263
Palmer, Christina A., Piermont, N. H. Easel for decorating pottery	230,432	July 27	1126	316	18	206
Palmer, Corydon B. (See Wilder, Aretus A., assignor.)						
Palmer, Deloss, assignor to Cragin Brothers & Chandler, Chicago, Ill. Soldering-tool	223,945	Jan. 27	904	240	17	183
Palmer, Deloss, assignor to Cragin Brothers & Chandler, Chicago, Ill. Apparatus for soldering tin cans	223,946	Jan. 27	905	241	17	183
Palmer, Eugene P. (See Palmer, Chauncey, assignor.)						

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Palmer, George, Bridgeville, Mich. Combined ditcher and scraper.....	225,637	Mar. 16	773	227	17	611
Palmer, George, Bridgeville, Mich. Combined ditcher and scraper. (Reissue).....	9,344	Aug. 17	912	257	18	409
Palmer, George E., Dundee, N. Y. Stove-pipe thimble.....	233,113	Oct. 12	396	109	18	809
Palmer, George H., Fairhaven, assignor of one-half interest to J. M. Allen, New Bedford, Mass. Buckle.....	223,240	Jan. 6	38	9	17	9
Palmer, George N., Greene, N. Y., assignor to C. La Dow. Horse-rake and hay-spreader. } (Reissue).....	9,050	Jan. 20	706	{ 190 191	{ 17	142
Palmer, George N., Greene, N. Y., assignor to C. La Dow. Combined horse-rake and hay- } spreader. (Reissue).....	9,180	Apr. 27	1153	{ 314 315	{ 17	967
Palmer, George N., Greene, N. Y., assignor to C. La Dow. Combined horse-rake and hay- } spreader. (Reissue).....	9,181	Apr. 27	1157	315	17	968
Palmer, Gustavus S., Waterville, Me. Differential balance.....	227,050	Apr. 27	1086	300	17	957
Palmer, Henry H. (See Rhoades, Edward, assignor.) (Reissue.).....						
Palmer, Isaac E., Middletown, Conn. Horse blanket and cover.....	224,468	Feb. 10	569	164	17	316
Palmer, Isaac E., Middletown, Conn., assignor, by mesne assignments, to himself and V. S. } Allen. Machinery for tentering and straightening fabrics. (Reissue).....	9,452	Nov. 9	675	{ 183 184	{ 18	1107
Palmer, Isaac H., Lodi, Wis. Pump attachment.....	232,143	Sept. 14	314	89	18	583
Palmer, James D. (See Hoffman and Palmer.).....						
Palmer, James M., Cambridge, Mass. Gas-carbureter.....	226,875	Apr. 27	877	244	17	924
Palmer, John J. (See Kammerer, Tony, assignor.).....						
Palmer, Lewis. (See Halcroft, Henry, assignor.).....						
Palmer, Richard P., Covington, assignor of one-half interest to J. W. O'Brien, Ludlow, Ky. } Vehicle-spring.....	230,332	July 20	971	275	18	174
Palmer Sponge Moistening Company. (See Doyle, James J., assignor.).....						
Palmer, Ura H., Green Spring, Ohio. Furrow-staff for millstones.....	230,331	July 20	970	275	18	174
Palmer, Wesley S. (See Barnes, John M., assignor.).....						
Palmer, Wilford L. (See Bliss and Badger, assignors.).....						
Palmer, Wilford L. (See Niles, William, assignor.).....						
Palmer, Wilford L., New York, N. Y. Manufacture of buttons or other articles from plas- } tic materials.....	225,638	Mar. 16	774		17	611
Palmer, William, New York, N. Y. Velocipede.....	233,691	Oct. 26	1121	{ 312 313	{ 18	948
Palmer, William H. (See Bovee and Palmer.).....						
Palmer, William H., Elizabethtown, and W. A. Root, New York, assignors of one-third in- } terest to C. N. Williams, Elizabethtown, N. Y. Wire or rod cutter.....	230,807	Aug. 3	240	69	18	286
Pancoast, George. (See Brown, James E., assignor.).....						
Panton, Edwin. (See Panton, Jason and E.) (Reissue.).....						
Panton, Jason and E., London, Ontario, Canada, assignors, by mesne assignments, to W. H. } Beebe, Chicago, Ill. Harvester. (Reissue).....	9,239	June 8	682	187	17	1342
Paquet, Frank, assignor of one-half interest to S. D. Hobson, East Brighton, Vt. Belt tight- } ener and regulator.....	227,382	May 11	351	102	17	1046
Paradis, Samuel, Ottumwa, Iowa. Force-pump.....	233,012	Oct. 5	256	70, 71	18	780
Parcelle, Albert L. (See Libbey and Parcelle.).....						
Pardee, James K., Phillipsburg, Mont. Ter. Rotary ore-roasting furnace.....	235,800	Dec. 21	906	253	18	1448
Pardee, William B., New Haven, Conn. Grinding-mill.....	226,777	Apr. 20	740	{ 206 207	{ 17	691
Pardessus, Semon J., Brooklyn, N. Y. Skylight-hatch.....	226,625	Apr. 20	580	162	17	865
Park, Robert W. (See Park, William R., assignor.).....						
Park, William R., assignor of one-half interest to R. W. Park, Philadelphia, Pa. Vapor- } burner.....	229,454	June 29	1556	428	17	1491
Parke, Amos S., Bay City, Mich. Pump-valve.....	230,892	Aug. 10	357	103	18	312
Parke, Amos S., Bay City, assignor of one-half to Merrill & Bacon, East Saginaw, Mich. } Pump.....	234,923	Nov. 30	1379	371	18	1244
Parke, Davis & Co. (See Nemours, John P., assignor.).....						
Parker, Abijah S., Binghamton, N. Y., assignor of one-half interest to C. T. Grilley, Bos- } ton, Mass. Prop-block washer for carriages.....	224,603	Feb. 17	738	209	17	355
Parker, Andrew H., Carlisle, Pa. Lock-faucet.....	233,872	Nov. 2	53	15	18	996
Parker, Barzillai K., New York, N. Y. Cloth-measuring machine.....	228,381	June 1	251	71	17	1267
Parker, Charles. (See Parker, Nelson, assignor.).....						
Parker, Charles H. (See Cooley and Parker.).....						
Parker, Charles S., Boston, Mass. Pool-ball adjuster.....	230,652	Aug. 3	69	19	18	258
Parker, Chauncey C. and S. B., Brooklyn, N. Y. Spring-scales.....	227,645	May 18	647	184	17	1106
Parker Company, Charles. (See Buckley, Chauncey, assignor.).....						
Parker Company, Charles. (See Hickman, Francis, assignor.).....						
Parker Company, Charles. (See King, Charles A., assignor.).....						
Parker Company, Charles. (See Parker and Chapman, assignors.).....						
Parker, Dexter W., and F. H. Chapman, assignors to Charles Parker Company, Meriden, } Conn. Domestic grinding-mill.....	233,010	Oct. 5	254	70	18	780
Parker, Edmund A., West Meriden, Conn. Extension lamp-fixture.....	230,047	July 13	619	173	18	110
Parker, Edmund A., assignor to Bradley & Hubbard Manufacturing Company, West Meri- } den, Conn. Student-lamp.....	231,353	Aug. 17	874	246	18	402
Parker, Edmund A., West Meriden, Conn. Bottle-stopper.....	231,678	Aug. 31	1252	352	18	476
Parker, Edmund A., West Meriden, Conn. Lamp-bracket.....	232,412	Sept. 21	654	180	18	647
Parker, Emery, New Britain, Conn. Knob attachment.....	224,348	Feb. 10	435	125	17	294
Parker, Emery, New Britain, Conn. Knob attachment.....	226,243	Apr. 6	110	30	17	765
Parker, Emery, New Britain, Conn. Knob-rose attachment.....	226,244	Apr. 6	111	30	17	766
Parker, Emery, New Britain, Conn. Lock-case.....	231,608	Aug. 24	1162	325	18	455
Parker, Emery, New Britain, Conn. Key.....	234,057	Nov. 2	282	78	18	1033
Parker, Ephraim, assignor of one-half interest to S. A. Otis, Boston, Mass. Railway- } switch.....	230,147	July 20	754	211	18	140
Parker, Erastus N., Springfield, Mass. Parallel pliers.....	225,485	Mar. 16	601	174	17	580
Parker, Frank W. (See Easterbrooks, Stephen G., assignor.).....						
Parker, Fred, and F. Dumont, Jr., Jersey City Heights, N. J. Watch-case.....	235,010	Nov. 30	1486	400	18	1263
Parker, George, Boston, Mass. Hatchway-guard.....	228,925	June 15	941	256	17	1388
Parker, Gustavus W., Brunswick, Me. Dovetailing-machine.....	224,106	Feb. 3	157	45	17	229
Parker, Homer N. (See Maynard and Parker.).....						
Parker, James B., Memphis, Ala. Cotton-picker.....	224,221	Feb. 3	284	82	17	250
Parker, James B., Memphis, Ala. Paper box.....	225,414	Mar. 9	513	148	17	555
Parker, James N., and J. F. Webster, Elkhart, Ind. Harvester-knife grinder.....	223,449	Jan. 13	295	78	17	66
Parker, John. (See Hohenstein, Archie G., assignor.).....						
Parker, John, Bradford, county of York, Great Britain, and A. McDonald, Halifax, Nova } Scotia, Canada. Piston-packing.....	233,430	Oct. 19	802	221	18	886
Parker, John, New York, N. Y., and T. Nichols, Newark, N. J. Machine for curling the } brims of hats.....	233,543	Oct. 19	929	256	18	907



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Parker, John M., Pawtucket, R. I. Gage-lathe.....	235,562	Dec. 14	621	178	18	1393
Parker, John R. (See Lynch, Parker, and Steel.)						
Parker, John W. (See Rothenbucher, John, assignor.)						
Parker, Joseph, Reading, Pa. Car-replacer.....	235,286	Dec. 7	267	75	18	1325
Parker, La Fayette, Davenport, Iowa. Operating cars on tramways or railways.....	224,347	Feb. 10	435	125	17	294
Parker, Nelson, assignor of one-half interest to C. Parker, Littleton, N. H. Glove.....	235,009	Nov. 30	1486	400	18	1263
Parker, Norman S. (See Moore and Parker.)						
Parker, Ralzemond A., et al. (See Barker, Philander M., assignor.)						
Parker, Reginald R., Indianapolis, Ind. Device for the display of scarfs, &c.....	229,838	July 13	394	108	18	75
Parker, Simon B. (See Parker, Chauncey C. and S. B.)						
Parker, Thomas, Menomonee, Wis., assignor of three-fourths interest to J. B. and A. Tainter and J. Downing. Sluiceway-gate.....	226,455	Apr. 13	358	102	17	818
Parker & Whipple Company. (See Jennings, Charles S., assignor.)						
Parker, William D., assignor to J. P. Richardson, Worcester, Mass. Octave and manual coupler for organs. (Reissue).....	9,497	Dec. 7	330	91	18	1337
Parker, Zachariah T., Nevada, Mo. Churn-power.....	224,602	Feb. 17	737	209	17	355
Parkhurst, Edward G. (See Gardner and Parkhurst.)						
Parkhurst, Edward G., Hartford, Conn. Cartridge packing and feeding case.....	231,927	Sept. 7	56	14	18	534
Parkhurst, Edward G., assignor of one-half interest to Pratt & Whitney Company, Hartford, Conn. Tripod-support for machine-guns.....	227,648	May 18	649	184 185	17	1106
Parkhurst, Edward G., assignor to himself and Pratt & Whitney Company, Hartford, Conn. Machine-gun.....	228,777	June 15	770	211	17	1364
Parkhurst, Edward G., assignor to himself and Pratt & Whitney Company, Hartford, Conn. Cartridge packing-case.....	228,926	June 15	942	256	17	1388
Parkhurst, Edward G., assignor to himself and Pratt & Whitney Company, Hartford, Conn. Cartridge feed-case for machine-guns.....	229,007	June 22	1055	287	17	1413
Parkhurst, Edward G., assignor, by mesne assignment, of one-half interest to Pratt & Whitney Company, Hartford, Conn. Machine-gun.....	231,607	Aug. 24	1162	325	18	455
Parkhurst, Louis H., Boston, Mass. Switch-operating mechanism.....	227,089	Apr. 27	1137	312	17	964
Parkinson, John H., assignor of one-third interest to F. Hinds, Virginia City, Nev. Air-compressor.....	225,161	Mar. 2	203	57	17	491
Parks, Austin S., and A. W. Streeter, assignors of one-third to C. J. Rice, Winchendon, Mass. Gage for sawing irregular curves.....	236,075	Dec. 28	1257	347	18	1513
Parks, Charles E. (See Lewis and Parks.)						
Parks, Dana, Boston, Mass. Self-leveling ship's berth.....	224,469	Feb. 10	570	164	17	316
Parks, George J., Cayahoga Falls, Ohio. Eave-trough hanger.....	232,293	Sept. 14	498	139	18	615
Parks, John A., Brooklyn, N. Y. Lithographic press.....	228,271	June 1	138	39	17	1248
Parks, Lyman B., assignor to T. K. Kelly, St. Louis, Mo. Broiler-furnace.....	232,680	Jan. 20	580	156	17	121
Parks, Marshall, Norfolk, Va. Excavating and grading machine.....	230,046	July 13	618	172	18	110
Parks, Robert H. (See Salveter, Theodore C., assignor.)						
Parks, William R., Palmer, Mass. Steam and hot-water boiler.....	229,173	June 22	1225	336	17	1438
Parlour, Joseph T., London, England. Excavating and dredging machinery.....	235,563	Dec. 14	626	179	18	1394
Parmelee, Henry S., New Haven, Conn. Fire-extinguisher. (Reissue).....	9,352	Aug. 24	1200	336	18	461
Parmlly, James L., et al. (See Knowles, Daniel M., assignor.) (Reissue.)						
Parod, Ernest U., Paris, France. Electrical conductor.....	225,861	Mar. 23	1040	299	17	664
Parr, George, Buffalo, N. Y. Machine for rolling chisels.....	224,720	Feb. 17	859	245	17	376
Parr, Joseph, assignor, by mesne assignments, to H. McCollum, New York, N. Y., administrator of J. McCollum, deceased. Endless-belt gearing. (Reissue).....	9,135	Mar. 30	1401	394	17	735
Parr, Joseph, assignor, by mesne assignments, to H. McCollum, New York, N. Y., administrator of J. McCollum, deceased. Cracker-machine. (Reissue).....	9,434	Oct. 26	1284	359 360	18	977
Parrish, William H., Salem, Oreg. Grain-separator.....	224,470	Feb. 10	571	164	17	317
Parrott, John J. H., assignor to himself and W. H. Leininger, Salem, Oreg. Double-tree.....	227,049	Apr. 27	1086	300	17	957
Parry, Charles T., et al. (See Longstreth, Edward, assignor.) (Reissue.)						
Parry, Daniel D. (See Wilkinson, William S., assignor.)						
Parry, Felix D., Amesbury, Mass. Carriage-bow.....	233,873	Nov. 2	54	15	18	996
Parshall, Charles H. (See Hodges and Parshall.)						
Parson, Henry E., New York, N. Y. Boiler-flue cleaner.....	232,294	Sept. 14	499	139	18	615
Parsons, Charles A., and W. Cross, Newcastle-upon-Tyne, county of Northumberland, England. Apparatus for communicating fluid-pressure to work movable hydraulic machines.....	235,565	Dec. 14	628	179	18	1394
Parsons, Elijah G. (See Johnson and Parsons.)						
Parsons, Francis W., Cleveland, Ohio. Water-pail.....	235,564	Dec. 14	627	179	18	1394
Parsons, George W., Ceredo, W. Va. Canal lock and dam. (Reissue).....	9,345	Aug. 17	913	257	18	409
Parsons, Lyman J., Waterbury, and W. M. Parsons, Killingworth, Conn. Washing-machine.....	228,108	May 25	1195	340	17	1203
Parsons, Walter. (See Dyer and Parsons.)						
Parsons, Warren M. (See Parsons, Lyman J. and W. M.)						
Partlow, Wyman C., Oakland, Cal. Vehicle-axle.....	226,454	Apr. 13	357	102	17	818
Partrick, Alfred W. (See Graves and Partrick.)						
Partrick, William. (See Graves and Partrick.)						
Partridge, Andrew. (See Upton and Partridge.)						
Partridge, Helen D., Brooklyn, N. Y. Foot-bath.....	233,011	Oct. 5	255	70	18	780
Partridge, John W., Boston, Mass. Glove-buttoner.....	230,196	July 20	807	228	18	149
Partridge, Lewis M. (See Richardson, Theodore M., assignor.)						
Partz, August F. W. (See Chavanette, Pierre M. J., assignor.)						
Parvin, Robert C., Forest Grove, N. J. Running-gear for wagons.....	231,082	Aug. 10	561	158	18	345
Pasqueau, Alfred, Lyons, France. Clough-dam or sluice-weir.....	225,533	Mar. 16	656	192	17	589
Passel, George W. (See Doane, Passel, and Bugbee.)						
Passell, George W., assignor to J. A. Fay & Co., Cincinnati, Ohio. Friezing-machine.....	232,365	Sept. 21	599	164	18	637
Passenger Fare Enumerator and Classifier Company. (See Miller and Reichert, assignors.) (Reissue.)						
Passmore, Everett G., Philadelphia, Pa. Pawl-and-ratchet device.....	233,636	Oct. 26	1060	295	18	938
Passmore, Everett G., Philadelphia, Pa. Pawl-and-ratchet device.....	233,637	Oct. 26	1062	295	18	938
Patch, Timothy B. (See Howes, Charles, assignor.)						
Pate, Joel L. C. (See McKinley, John P., assignor.)						
Paterson, John, assignor to R. Adams & Son, Edinburgh, North Britain. Washing-machine.....	226,780	Apr. 20	743	207	17	891
Patery, Jacob P., Dunnigan, Cal. Plowshare-fastener.....	227,991	May 25	1069	304	17	1183
Patitz, Albert, assignor to Bradley & Hubbard Manufacturing Company, West Meriden, Conn. Cigar-lighter lamp.....	232,058	Sept. 7	218	59	18	560
Patrick, Frank, Brownville, N. Y. Hay-unloader.....	226,457	Apr. 13	361	103	17	819
Patrick, William K. (See Harris and Patrick.)						
Patrick, William R., Marinette, Wis. Preparing wood for making paper-pulp.....	227,646	May 18	647	.....	17	1106
Patrick, William R., Marinette, Wis. Preparing wood for making paper-pulp.....	227,647	May 18	648	.....	17	1106
Patrick, William R., Marinette, Wis. Preparing wood for making paper-pulp.....	234,142	Nov. 9	387	.....	18	1058

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Patrick, William R., Marinette, Wis. Preparing wood for making paper-pulp.....	234,143	Nov. 9	388	-----	18	1058
Patrick, William R., Marinette, Wis. Apparatus for preparing wood for making paper-pulp.....	234,144	Nov. 9	388	106	18	1058
Patten, George. (See Woodbury, Merrill, Patten, and Woodbury.)						
Patten, George M. (See Mason, William B., assignor.)						
Patten, George M., Holbrook, Mass. Seal-lock.....	229,006	June 22	1033	287	17	1412
Patten, George M., Jersey City, N. J., assignor to Thompson, Perley & Waite, Baldwinsville, Mass. Child's chair.....	230,048	July 13	621	173	18	110
Patten, Mark W., Somerville, Mass. Bottle-stopper.....	226,926	Apr. 27	938	260	17	934
Patten, Mark W., Somerville, Mass. Attachment for bottling-machines.....	226,927	Apr. 27	939	260	17	934
Patterson, Charlton, and H. L. Abrahams, Russell, Kans. Sulky-plow.....	234,323	Nov. 9	611	166	18	1097
Patterson, Frank, et al. (See Campbell, Joseph H., assignor.)						
Patterson, George F., Baltimore, Md. Stock-car.....	225,486	Mar. 16	602	175	17	580
Patterson, George F., Baltimore, Md. Stock-car.....	233,369	Oct. 19	728	199	18	873
Patterson, James R., Franklin, Ark. Horse-power.....	235,011	Nov. 30	1487	400	18	1263
Patterson, John S. B., Baltimore, assignor of one-half interest to W. G. Hoff, Clifton, Md. Copy-holder.....	229,453	June 29	1555	428	17	1491
Patterson, Joseph E., and W. E. Hayes, Erie, Pa. Ice-cream freezer.....	225,487	Mar. 16	603	175	17	580
Patterson, Joseph P., assignor to H. E. Roberts, Baltimore, Md. Bill-file.....	223,813	Jan. 27	746	200	17	158
Patterson, Lewis, Terre Haute, Ind. Machine for making hook-headed nails and spikes.....	224,471	Feb. 10	572	165	17	317
Patterson, Newton A., and W. C. Hale, Johnson City, assignors of one-half interest to G. F. Gammon, Jr., Austin Springs, and J. White, Johnson City, Tenn. Grinding-mill.....	231,354	Aug. 17	875	246	18	402
Patterson, Peter, assignor to National Tube Works Company, McKeesport, Pa. Apparatus for operating the mandrel-bars of tube-welding machines.....	235,801	Dec. 21	907	253	18	1448
Patterson, Samuel, Altoona, Pa. Metal-bending tool.....	225,415	Mar. 9	513	148	17	555
Patterson, Thomas H. (See Lawrence and Kerr, assignors.)						
Patterson, William, assignor to himself, J. W. Brightman, E. Mills, and N. W. Taylor, Cleveland, Ohio. Paper bag.....	226,456	Apr. 13	359	103	17	819
Patterson, William, Louisville, Ky. Burial-case.....	227,123	May 4	36	10	17	984
Patterson, William F., Boston, Mass. Balance-line for mast-hoops.....	231,928	Sept. 7	57	14	18	534
Patterson, William H., assignor to himself, N. W. Taylor, J. W. Brightman, and E. Mills, Cleveland, Ohio. Tube-machine.....	234,925	Nov. 30	1380	372	18	1245
Patterson, William J., et al. (See Magill, Robert, assignor.)						
Patterson, William R., Evanston, assignor to Western Electric Manufacturing Company, Chicago, Ill. Terminal for underground-telegraph lines.....	233,162	Oct. 12	453	125	18	819
Pattison, Robert R., Terre Haute, Ind. Automatic paper-hanger.....	225,860	Mar. 23	1039	298	17	664
Patton, J. N., et al. (See Youree, Silas M., assignor.)						
Patton, John H. (See Patton, William P., assignor.)						
Patton, Thomas B., Saltsburg, Pa. Land-roller.....	229,746	July 6	271	76	18	48
Patton, William G., Parks Station, Tenn. Cotton-chopper.....	231,083	Aug. 10	562	158	18	345
Patton, William P., assignor of one-half to J. H. Patton, Harrisburg, Pa. Apparatus for generating hydrocarbon illuminating and heating gas.....	235,451	Dec. 14	485	137	18	1370
Paul, Almarin B., San Francisco, Cal. Ore-grinding mill.....	232,364	Sept. 21	597	164	18	637
Paul, Amos, South New Market, N. H. Adjustable scroll.....	231,188	Aug. 17	696	196	18	373
Paul, Archibald, Cohoes, N. Y. Machine for winding bobbins.....	233,112	Oct. 12	394	108	18	809
Paul, George D., New York, assignor to himself, H. C. Mercereau, and W. Lisle, Jr., Brooklyn, N. Y. Car-brake.....	229,747	July 6	272	76, 77	18	48
Paul, John A., assignor of one-half interest to J. H. Musser, Huntingdon, Pa. Fruit-jar top.....	226,779	Apr. 20	742	207	17	891
Paul, John A., Huntingdon, Pa. Railway-signal.....	233,367	Oct. 19	725	198 199	18	873
Paul, John A., Huntingdon, Pa. Electrical railway-signal.....	233,368	Oct. 19	727	199	18	873
Paul, Timothy S. (See Thomas, James R., assignor.)						
Paulson, Richard. (See Paulson, William and E.)						
Paulson, William and R., Mount Sorrel, (near Loughborough,) assignors to W. Pickering, Arundel Street, Strand, Middlesex county, England. Lubricator.....	227,570	May 11	557	159	17	1080
Paulu, John, Milwaukee, Wis. Vehicle-axle.....	230,433	July 27	1126	316	18	206
Paulu, John, Milwaukee, Wis. Wagon-standard.....	234,889	Nov. 30	1338	360	18	1238
Pawling, Joseph H., assignor of one-fourth interest to J. B. Heil and A. Wagner, Philadelphia, Pa. Machine for booking tobacco-leaves.....	226,778	Apr. 20	741	207	17	891
Paxon, Philip H., Camden, N. J. Lozenge-cutting machine.....	231,679	Aug. 31	1253	352	18	476
Paxson, Charles H. (See Martin and Paxson.)						
Paxson, John L., New Hope, Pa. Lumber-fall.....	227,571	May 11	558	159	17	1080
Paxton, Alexander M., Vicksburg, Miss. Baling-press.....	225,416	Mar. 9	514	148	17	555
Payne, Benjamin N., Corning, N. Y. Food for cattle.....	234,718	Nov. 23	1122	-----	18	1196
Payne, David C., and D. A. Danforth, assignors of one-third interest to S. D. Straw, Elkhart, Ind. Windmill.....	228,672	June 8	609	163	17	1331
Payne, David H. and J. H., Troy, N. Y. Clothes-line pulley.....	223,947	Jan. 27	906	241	17	183
Payne, David H. and J. H., Troy, N. Y. Suspension clothes-line pulley.....	236,076	Dec. 28	1258	347	18	1514
Payne, James W., Tipton, assignor of three-fourths interest to A. P. Speed, Cooper County, Mo. Nut-lock.....	229,175	June 22	1227	337	17	1438
Payne, Jerome H. (See Payne, David H. and J. H.)						
Payne, John, New Hamburg, Ontario, Canada. Sash-fastener.....	230,434	July 27	1127	317	18	206
Payne, John T., White Stone, Va. Wheel-cultivator.....	235,012	Nov. 30	1487	401	18	1263
Payne, William H., Sandwich, Ill. Grain-binder.....	234,372	Nov. 9	657	179	18	1104
Payton, George J., East St. Louis, Ill. Stuffing-box packing.....	232,542	Sept. 21	806	223	18	673
Peabody, Joseph, Conotton, Ohio. Portable fence.....	225,162	Mar. 2	204	57	17	491
Peabody, Roswell L., Thomaston, Conn. Hair-spring stud for watches and clocks.....	234,793	Feb. 24	980	278	17	410
Peabody, William B. O., Boston, Mass. Apparatus for assisting in drawing.....	228,273	June 1	140	39, 40	17	1249
Peace & Clark. (See Peace, John G., assignor.)						
Peace, John G., assignor to Peace & Clark, Salem, Mo. Felly-boring machine.....	227,572	May 11	559	160	17	1081
Peace, William C. (See Tenney and Walton, assignors.)						
Peach, Charles S., North Adams, Mass. Ring-spinning frame.....	226,346	Apr. 6	223	65	17	786
Peach, Robert W. (See Piaget, Henry V. and F. A., assignors.)						
Peacock, Job F., San Francisco, Cal. Knob-rose.....	234,058	Nov. 2	283	78	18	1033
Peacock, Joseph V. (See Sheldon and Peacock.)						
Peaker, Thomas, Springfield, Ill. Violin.....	231,084	Aug. 10	563	159	18	346
Pear, Isaac S. (See Turner, Joshua, assignor.)						
Pearce, Henry O., Brooklyn, N. Y. Ventilating-hat.....	225,235	Mar. 9	300	86	17	521
Pearce, John W., Suisun, Cal. Spark-controlling stack for boilers.....	223,605	Jan. 13	481	130	17	96
Pearce, William, assignor to himself, N. A. Barnes, and M. N. Woodruff, Southington, Conn. Die for forming king-bolts.....	234,059	Nov. 2	284	78, 79	18	1033
Pearce, William, Plantsville, assignor of one-half to M. N. Woodruff and N. A. Barnes, Southington, Conn. Device for making pole-eyes for carriages.....	235,805	Dec. 21	912	254	18	1440

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Pearce, William, Plantsville, assignor of one-half to M. N. Woodruff and N. A. Barnes, } Southington, Conn. Device for making body-loops for carriages.....	235,806	Dec. 21	913	{ 254 255 }	{ 18	1449
Pearce, William H., Sprague, Conn. Alarm-lock .....	224,791	Feb. 24	977	277	17	409
Peard, John, Brooklyn, N. Y. Writing-desk.....	232,733	Sept. 28	1049	287	18	720
Peare, George R., assignor to himself, A. F. Smith, and G. W. Hoyt, Lynn, Mass. Boot and shoe sewing machine.....	235,377	Dec. 14	394	108	18	1354
Pearl, George H., Moosic, Pa. Ironing-board .....	226,543	Apr. 13	465	131	17	835
Pears, Thomas C., Pittsburg, Pa. Manufacture of glassware .....	224,555	Feb. 17	675	192	17	344
Pearson, Charles C., <i>et al.</i> (See Stevens, Frank M., assignor.)						
Pearson, Charles T., New York, N. Y. Combined cork-protector and measuring device for bottles.....	232,144	Sept. 14	315	89	18	584
Pearson, Christopher F., Portland, Oreg. Roofing composition.....	234,425	Nov. 16	750	.....	18	1128
Pearson, Edward M. (See Wilcox and Pearson.)						
Pearson, Henry G., New York, N. Y., assignor to Chinnock Electric Company. Electrical conductor.....	231,085	Aug. 10	564	159	18	346
Pearson, John H., <i>et al.</i> (See Stevens, Frank M., assignor.)						
Pearson, Thomas T., assignor of one-half interest to Record & Boyer, Moncton, New Bruns- wick, Canada. Whiffletree.....	230,490	July 27	1196	336	18	217
Pease, Addison, Montevideo, assignor of one-half interest to S. Bundock, Ortonville, Minn. Magazine fire-arm.....	228,778	June 15	773	212	17	1365
Pease, Charles, Lynn, Mass. Padlock.....	229,332	June 29	1418	388	17	1472
Pease, Charles, assignor to himself, F. W. Beale, and F. Pease, Lynn, Mass. Socket for croquet-wickets.....	234,924	Nov. 30	1380	371	18	1245
Pease, Francis S., Buffalo, N. Y. Apparatus for testing oil by electricity .....	226,187	Apr. 6	47	12	17	754
Pease, Frank, <i>et al.</i> (See Pease, Charles, assignor.)						
Pease, Henry C., Worcester, Mass. Machinery for crimping leather for boots and shoes ...	226,876	Apr. 27	878	244	17	924
Pease, Julius A., Chelsea, Mass. Pump.....	225,488	Mar. 16	604	175	17	581
Peat, Thomas, assignor of one-half to J. C. Breneman, Youngstown, Ohio. Belt-shifting mechanism.....	234,802	Nov. 23	1228	331	18	1212
Peatie, John C., Chicago, Ill. Truck.....	235,647	Dec. 21	727	207	18	1418
Peavey, Charles A. (See Peavey, Hiram, C. A., and J. H.)						
Peavey, Hiram, Veazie, C. A., and J. H. Peavey, Bangor, Me. Cant-hook.....	224,605	Feb. 17	739	210	17	355
Peavey, James H. (See Peavey, Hiram, C. A., and J. H.)						
Peck, Alexander S., Farmingdale, Ill. Car-coupling .....	224,721	Feb. 17	860	245	17	376
Peck Brothers & Co. (See Moore, Aquila, assignor.)						
Peck & Co., Samuel. (See Smith, Isaac, assignor.)						
Peck, E. F. (See Vining, George, assignor.)						
Peck, Elias, <i>et al.</i> (See French, William W., assignor.)						
Peck, Homer P. K., Cincinnati, Ohio. Artificial ear-drum.....	235,566	Dec. 14	629	179	18	1394
Peck, Isaac D., assignor of one-half interest to E. Houck, Bedford, Iowa. Measuring-re- ceptacle.....	227,919	May 25	979	280	17	1169
Peck, Stow & Wilcox Company. (See Stow and Grannis, assignors.)						
Peck, Stow & Wilcox Company. (See Stow, Orson W., assignor.)						
Peck, William W., Newark, and H. H. Knight, Sandusky, Ohio. Washer and nut.....	224,472	Feb. 10	573	165	17	317
Peckham, William C., Troy, assignor of one-half interest to D. F. McKittrick, Marysville, Ohio. Corn-planter.....	227,822	May 18	844	239	17	1136
Pecor, Emmett C., and F. W. Bartlett, Galveston, Tex.; said Bartlett assignor to said Pecor. Canning shrimps and other fish.....	226,347	Apr. 6	224	65	17	787
Pedder, John, Pittsburg, Pa. Crucible.....	230,050	July 13	623	174	18	110
Pederson, Ole, Joliet, Ill. Caster.....	223,948	Jan. 27	907	241	17	184
Peck, David T., New York, N. Y. Foot-guard for lyres of musical instruments .....	224,948	Feb. 24	1142	327	17	437
Peene, George, Jr. See Stewart and Peene.)						
Peer, Perry A., Comstock, Mich. Harrow-tooth .....	224,722	Feb. 17	860	246	17	376
Peer, Perry A., Comstock, Mich. Hinge.....	230,491	July 27	1197	337	18	217
Peery, James, Lucas, Mo. Hog-ring.....	224,349	Feb. 10	436	125	17	295
Peet & Co., W. C. (See Fichtenberg, Werner W., assignor.)						
Peet, John T., assignor to Redway & Burton, Cincinnati, Ohio. Stove-hearth.....	235,803	Dec. 21	910	253	18	1448
Peirce, Charles L., Milwaukee, Wis. Hitching-post.....	230,049	July 13	622	173	18	110
Peirce, I. Newton, Philadelphia, Pa. Covering for boilers, &c.....	236,077	Dec. 28	1259	348	18	1514
Peirce, James H., assignor of one-half interest to J. Ross, Blountsville, Ind. Cultivator... Pelisse, August, Newark, N. J., assignor to T. W. Bracher, New York, N. Y. Machine for stretching the sweat-leathers of hats.....	227,383	May 11	354	103	17	1046
Pell, Henry W., Rome, N. Y., assignor, by mesne assignments, to W. H. Beebe. Harvester. (Reissue).....	9,326	Aug. 3	294	84	18	296
Pelletier, Antonio, Washington, D. C. Laying pavements.....	230,492	July 27	1197	337	18	217
Pelstring, George, Cincinnati, Ohio. Machine for polishing wood.....	224,473	Feb. 10	574	165	17	317
Peltier, Gilbert J., Wakenda, Mo. Vehicle-top.....	228,110	May 25	1196	341	17	1204
Pelton, Alonzo, <i>et al.</i> (See Hoffman, Austin D., assignor.)						
Pelton, Lester A., Camptonville, Cal. Water-wheel.....	233,692	Oct. 26	1122	313	18	949
Pemberton, Henry, Philadelphia, Pa. Manufacture of bichromates.....	234,145	Nov. 9	391	.....	18	1059
Pemble, Robert, Sr., Robert, Jr., and J. H. Hayes, Cerro Gordo, Ill. Hog-nose cutter.....	233,694	Oct. 26	1124	313	18	949
Pendleton, Charles G., New York, N. Y. Solution for nickel-plating.....	232,615	Sept. 28	892	.....	18	694
Pendleton, Elliott H., Jr., and E. S. Perin, Cincinnati, Ohio. Necktie.....	227,294	May 4	229	68	17	1016
Pendleton, Frank P., <i>et al.</i> (See Stamour, John B., assignor.)						
Pendley, William, and A. Moss, assignors of one-third interest to J. E. Stephens, Talking Rock, Ga. Wheel plow and cultivator.....	226,674	Apr. 20	634	177	17	873
Pendley, William, and A. Moss, assignors of one-third interest to J. E. Stephens, Talking Rock, Ga. Harrow.....	226,675	Apr. 20	635	177	17	873
Pendley, William, and A. Moss, Ludville, Ga. Wheel-cultivator.....	235,452	Dec. 14	486	138	18	1370
Penfield, Charles W. (See Carnes and Penfield.)						
Penfield, James W., Willoughby, Ohio. Brick and tile machine.....	225,995	Mar. 30	1222	{ 345 346 }	{ 17	706
Penfield, Martin, New Britain, Conn. Knob attachment.....	227,992	May 25	1070	304	17	1183
Penney, Isaac L., assignor of one-half interest to E. G. Brooks, Minneapolis, Minn. Grinding twist-drills.....	230,715	Aug. 3	138	41	18	269
Pennie, Henry, Brooklyn, N. Y. Rubber heel.....	232,900	Oct. 5	127	33	18	759
Pennie, Henry, Brooklyn, assignor of one-half interest to J. Pennie, Jr., Albany, N. Y. Button and button-fastening.....	224,303	Feb. 10	384	108	17	286
Pennie, John, Jr. (See Pennie, Henry, assignor.)						
Penniman, Charles F. (See Collins and Penniman.)						
Penniman, Elijah P., Sr., Bloomington, Ill., assignor of one-half interest to N. Diedrich. Heater or furnace.....	223,450	Jan. 13	296	78	17	66
Pennington, John C., Paterson, N. J. Preparing paper and other fabrics and materials for wrapping silver and other metals to prevent them from tarnishing.....	223,814	Jan. 27	747	.....	17	158

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Penroyer, Dorwin D., Boston, assignor, by mesne assignments, of one-half interest to J. S. Williams, Lowell, Mass. Composition for roofs .....	224,606	Feb. 17	741	.....	17	355
Pennsylvania Salt Manufacturing Company. (See Bihn, George F., assignor.)						
Pennsylvania Salt Manufacturing Company. (See Bihn and Heerlein, assignors.)						
Pennsylvania Steel Company. (See Cummings, Albert G., assignor.)						
Pennsylvania Steel Company. (See Richardson, John T., assignor.)						
Pennypacker, William G., Wilmington, Del. Bushing for bungs .....	233,638	Oct. 26	1063	295	18	939
Penrose, Emilen G. (See Drain, McClung, and Penrose.)						
Pentlarge, Frederick, Brooklyn, N. Y. Boring-tool .....	234,686	Nov. 23	1088	232	18	1190
Pentz, Albert D., Chicago, Ill. Power attachment for sewing-machines .....	231,189	Aug. 17	697	196	18	373
People's Telephone Company. (See Klemm, Frank A., assignor.)						
Pepper, James W., Philadelphia, Pa. Music-stand .....	229,271	June 29	1335	367	17	1461
Percefull, Zeaddock R., assignor of one-half interest to T. Lanigan, Fort Smith, Ark. Plow ..	229,455	June 29	1557	429	17	1491
Perchment, John, Pittsburg, Pa. Brick or building-block and method of laying the same ..	225,945	Mar. 30	1162	330	17	697
Percival, William H., Bayswater, Great Britain. Stringed musical instrument .....	225,997	Mar. 30	1225	346	17	707
Perham, Henry B., Cairo, Ill. Blacking-brush holder .....	229,748	July 6	274	77	18	49
Perin, Edmund S. (See Pendleton and Perin.)						
Perin, Oliver L., D. Horan, and D. McGoen, Cincinnati, Ohio. Alcohol-still .....	230,333	July 20	972	276	18	174
Perkins, Benjamin, <i>et al.</i> (See Pendleton and Perin.)						
Perkins, Benjamin, <i>et al.</i> (See Vetter, Joseph C., assignor.)						
Perkins, Charles H., C. Streborn, and P. Dixon, Bloomington, Ill. Flue-expander .....	233,797	Oct. 26	1237	344	18	969
Perkins, Clayton H., assignor of one-half interest to H. Thomas, Holyoke, Mass. Electric annunciator .....	227,704	May 18	715	202	17	1116
Perkins, Duane T., Springfield, Mass. Fire-extinguisher .....	231,190	Aug. 17	698	196	18	373
Perkins, Elhn L., Geneva, Ohio. Connection for presses, &c. ....	231,929	Sept. 7	58	14	18	534
Perkins, George F. (See Snell, Adolphus G., assignor.)						
Perkins, George H., Philadelphia, Pa. Belt-elevator .....	224,843	Feb. 24	1032	294	17	418
Perkins, George H., Philadelphia, Pa. Can-seaming machine .....	227,823	May 18	845	240	17	1136
Perkins, George H., Philadelphia, Pa. Can-seaming machine .....	227,824	May 18	847	240	17	1136
Perkins, George H., Philadelphia, Pa. Apparatus for filling cans .....	227,825	May 18	848	240	17	1136
Perkins, George H., Philadelphia, Pa. Soldering-machine .....	227,826	May 18	850	240	17	1137
Perkins, George H., Philadelphia, Pa. Gage for presses .....	227,827	May 18	851	241	17	1137
Perkins, George H., Philadelphia, Pa. Circular feed apparatus for presses .....	228,553	June 8	472	127	17	1311
Perkins, George H., Philadelphia, Pa. Machine for feeding sheet metal to trimmers, &c. ....	230,962	Aug. 10	427	123	18	323
Perkins, George H., Philadelphia, Pa. Automatic apparatus for uniting tinned-metal plates by heat and pressure .....	234,423	Nov. 16	745	201	18	1127
Perkins, George H., Philadelphia, Pa. Rotary benzine-furnace for heating soldering-irons ..	234,424	Nov. 16	748	202	18	1128
Perkins, George H., Philadelphia, Pa., assignor to himself, J. Le Comte, and Atlantic Re-fining Company. Machine for uniting tinned plates. (Reissue) .....	9,399	Oct. 5	322	89	18	791
Perkins, George H., Philadelphia, Pa., assignor to himself, J. Le Comte, and Atlantic Re-fining Company. Machine for uniting tinned plates by heat and pressure. (Reissue) ..	9,406	Oct. 12	643	178	18	853
Perkins, George H., J. Bozorth, and W. S. Marble, Philadelphia, Pa.; said Bozorth and Marble assignors to said Perkins. Nail-feeder for box-nailing machines .....	234,803	Nov. 23	1230	331	18	1213
Perkins, George H., W. S. and E. B. Clark, Philadelphia, Pa. Stop-valve .....	226,544	Apr. 13	466	131	17	835
Perkins, George H., and W. McNaught, Philadelphia, Pa.; said McNaught assignor to said Perkins. Blank-guard for die-presses .....	227,829	May 18	855	242	17	1137
Perkins, George H., and W. McNaught, Philadelphia, Pa.; said McNaught assignor to said Perkins. Metal-working press .....	228,554	June 8	473	127	17	1311
Perkins, Gustavus S., Hartford, Conn. Awning .....	231,728	Aug. 31	1314	370	18	485
Perkins, John B., Taunton, Mass. Pen-rack .....	231,969	Sept. 7	119	30	18	543
Perkins, John C., assignor of one-half interest to R. Mycoeth, Sr., Jersey City, N. J. Mixed phosphatic manure .....	233,875	Nov. 2	55	.....	18	996
Perkins, Leander B., Beebe Station, Ark. Horse-power .....	227,293	May 4	228	67	17	1016
Perkins, Loftus, Seaford Street, Gray's Inn Road, county of Middlesex, England. Com-pound engine .....	226,416	Apr. 13	307	89, 90	17	811
Perkins, Loftus, Seaford Street, Gray's Inn Road, county of Middlesex, England. Ma- rine and other steam-engines .....	227,828	May 18	852	{ 241 242 }	{ 17 17 }	{ 1137 1137 }
Perkins, Loftus, Seaford Street, Gray's Inn Road, county of Middlesex, Great Britain. } Screw-propeller .....	229,270	June 29	1333	{ 366 367 }	{ 17 17 }	{ 1461 1461 }
Perkins, Loftus, and W. W. Harris, Seaford Street, county of Middlesex, England. Valve-gear for engines .....	235,287	Dec. 7	269	75	18	1325
Perkins, Nahum S. C., Norwalk, Ohio. Velocipede .....	223,241	Jan. 6	39	9	17	9
Perkins, Nahum S. C., Norwalk, Ohio. Velocipede .....	231,609	Aug. 24	1163	{ 325 326 }	{ 18 18 }	{ 455 455 }
Perkins, Pardon T., Oswego, N. Y. Lift-pump .....	228,383	June 1	252	71	17	1267
Perkins, Robert W., and F. H. Allen, assignors to said Allen and J. E. Warner, Norwich, Conn. Machine for forming harness-loops .....	236,078	Dec. 28	1260	348	18	1514
Perkins, Russell B., assignor to E. Miller & Co., Meriden, Conn. Lantern .....	232,295	Sept. 14	500	139	18	615
Perkins, Russell B., assignor to E. Miller & Co., Meriden, Conn. Lantern .....	234,926	Nov. 30	1381	372	18	1245
Perkins, Willis J., Grand Rapids, Mich. Mechanical movement .....	228,779	June 15	775	212	17	1365
Perkins, Willis J., Grand Rapids, Mich. Gang-edger .....	232,754	Sept. 28	1050	288	18	720
Pernot, Emile F., Bowling Green, Ohio. Addressing-machine .....	226,781	Apr. 20	743	208	17	891
Perrigo, Charles B., Bloomington, Ill. Pocket check-book .....	231,497	Aug. 24	1035	290	18	435
Perrigo, Oscar E. (See Lottier and Perrigo.)						
Perrin, Rice, Springfield, Mo. Window-screen .....	228,384	June 1	253	71	17	1267
Perron, Charles H. (See Letellier, George F., assignor.)						
Perry, Arthur F., assignor of two-thirds interest to T. Swift and J. Callahan, Grand Junc-tion, Iowa. Implement for handling shelf-goods .....	227,444	May 11	415	120	17	1056
Perry, Benjamin P., Richmond, Ind. Furnace grate-bar .....	227,124	May 4	37	11	17	984
Perry, Charles M. (See Aspinwall and Perry.) (Reissue.)						
Perry, Francis A., Keene, N. H. Spark-arrester. (Reissue) .....	9,363	Aug. 31	1513	423	18	516
Perry, Francis A., Keene, N. H. Spark-arrester. (Reissue) .....	9,364	Aug. 31	1513	424	18	517
Perry, Francis A., Keene, N. H. Spark-arrester. (Reissue) .....	9,420	Oct. 19	986	273	18	917
Perry, Francis A., Keene, N. H. Spark-arrester. (Reissue) .....	9,421	Oct. 19	987	274	18	917
Perry, Francis A., Keene, N. H. Cone for locomotives .....	228,386	June 1	255	72	17	1268
Perry, Francis A., Keene, N. H. Muffler for steam-pipes .....	230,893	Aug. 10	358	103	18	312
Perry, James L. (See Bridgman and Perry.)						
Perry, John S. (See Liddle and Morris, assignors.)						
Perry, John S. (See Naylor, James, Jr., assignor.)						
Perry, John S., <i>et al.</i> , trustees. (See Fulton, Calvin, assignor.) (Reissue.)						
Perry, John S., <i>et al.</i> , trustees. (See Moore, George R., assignor.) (Reissue.)						
Perry, Stuart. (See Sprague and Perry.)						
Perry, William C., Brattleborough, Vt. Car-coupling .....	231,845	Aug. 31	1457	409	18	507
Perry, William V., Beaver Dam, Wis. Bumper .....	228,385	June 1	254	72	17	1268



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Pertz, John W. (See Moore and Pertz.)						
Pesant, José A., Havana, Cuba. Vehicle-wheel.	235,802	Dec. 21	909	253	18	1448
Peters, Enos, Appleton, Ohio. Harness-clamp	226,782	Apr. 20	744	208	17	892
Peters, Franz, Chicago, Ill. Barber's chair.	224,604	Feb. 17	738	209	17	355
Peters Furniture Company, Joseph. (See Spier, Charles, assignor.)						
Peters, George M., Columbus, Ohio. Vehicle-dash frame.	224,792	Feb. 24	978	278	17	409
Peters, George M., Columbus, Ohio. Fastening attachment for vehicle-dashes.	225,019	Mar. 2	42	12, 13	17	463
Peters, George M., Columbus, Ohio. Carriage-dash frame.	228,474	June 8	369	101	17	1295
Peters, George M., and A. Standish, Columbus, Ohio; said Standish assignor to said Peters. Device for manufacturing dashes.	226,417	Apr. 13	310	90	17	811
Peters, George M., and A. Standish, Columbus, Ohio; said Standish assignor to said Peters. Machine for the manufacture of dashes.	232,899	Oct. 5	125	33	18	758
Peters, Henry C. (See Miller, Fredrick C., assignor.)						
Peters, Henry C. (See Miller and Peters.)						
Peters, John E., Philadelphia, Pa., assignor of two-thirds interest to W. J. Budd and P. F. Carroll. Manufacture of hat rims and bands.	225,996	Mar. 30	1224	346	17	706
Peters, Samuel, assignor to G. Sanford, Crown Point, Ind. Plow-truck.	233,276	Oct. 12	587	162	18	843
Petersen, Adolf F. A., Hamburg, Germany. Mechanism for controlling the steering-gear of vessels.	233,876	Nov. 2	57	15	18	996
Petersen, Adolph F., Chicago, Ill. Bridge-gate.	227,125	May 4	38	11	17	984
Petersen, Adolphus, New York, N. Y., assignor of one-half to S. C. Croft. Carpet-exhibitor. (Reissue.)	9,522	Dec. 28	1345	368	18	1528
Peterson, Adolphus, Brooklyn, assignor of one-half interest to S. C. Croft, New York, N. Y. Carpet-exhibitor.	231,680	Aug. 31	1254	352 } 353 }	18	476
Peterson, Peter, Philadelphia, Pa. Water-proof fabric.	227,573	May 11	560		17	1081
Peterson, Richard, and J. Beesley, Philadelphia, Pa., assignors to said Peterson. Stove-leg.	224,947	Feb. 24	1142	326	17	437
Petes, Charles N., assignor to M. Nelson, Chicago, Ill. Surface-feeder for steam-boilers.	223,380	Jan. 6	194	51	17	36
Petmecky, Joseph C., Austin, Tex. Bullet.	233,114	Oct. 12	397	109	18	810
Petraeus, Carl V., Philadelphia, Pa. Manufacture of aluminous cake.	225,300	Mar. 9	386		17	534
Petraeus, Carl V., Philadelphia, Pa. Manufacture of aluminous cake.	225,301	Mar. 9	387		17	534
Petri, Friedrich, Munich, Bavaria. Speed indicator and recorder.	229,456	June 29	1558	429 } 430 }	17	1492
Pettee, Simon E., assignor of one-half interest to N. W. Taylor, Cleveland, Ohio. Machinery for making first folds of satchel-bottom paper bags.	225,163	Mar. 2	205	58	17	492
Pettengill, Charles B., East Brookfield, Mass. Mop-wringer.	223,242	Jan. 6	40	10	17	9
Pettengill, Charles B., East Brookfield, Mass. Suspender for vases and flower-pots.	225,020	Mar. 2	45	13	17	464
Pettengill, Samuel M., Brooklyn, N. Y. Endless-cable railway.	230,808	Aug. 3	241	69	18	286
Pettet, Charles A., Belleville, Ontario, Canada. Knob attachment.	233,693	Oct. 26	1123	313	18	949
Pettigrove, Frank C. (See Dennen, Du Bois, Gee, and Pettigrove.)						
Pettingell, Charles F., Salisbury, Mass. Hand-screw.	229,008	June 22	1056	287	17	1413
Pettit, Benjamin F., San Luis Obispo, Cal. Grain and seed separating screen.	229,632	July 6	138	39	18	29
Pettit, John B., Burlington, Iowa. Washing-machine.	228,272	June 1	139	39	17	1249
Pettus, Richard T., Kingston, Ky. Blank for saddle-bags.	235,013	Nov. 30	1489	401	18	1263
Petz, John, et al. (See Reinhold, Franz, assignor.)						
Peyton, William H., Iuka, Miss. Combined shovel, tongs, and pot-hook.	235,804	Dec. 21	911	254	18	1449
Pfarre, Edward, Brooklyn, N. Y. Bougie.	229,633	July 6	140	39	18	29
Pfautz, Daniel M., assignor to L. and S. Sternberger and E. P. Smithers, Philadelphia, Pa. Extension-tower.	226,101	Mar. 30	1342	378	17	725
Pfeiffer, William, Chicago, Ill. Thill-coupling.	232,366	Sept. 21	600	164	18	638
Pfeiffer, Adolph, Neenah, Wis. Whiffletree-hook.	233,639	Oct. 26	1063	296	18	939
Pfeil, Herman C., Camden, N. J. Lithographic-printing machine.	223,243	Jan. 6	41	10	17	9
Pfender, John. (See Helder and Pfender.)						
Pfiffner, Jacob, and J. Krichs, Dubuque, Iowa. Fly-net.	233,798	Oct. 26	1238	344	18	969
Pfister, John, Naperville, Ill. Clothes-pounder.	232,059	Sept. 7	218	60	18	560
Pfleger, Justus, assignor of one-half interest to S. Kessler, Philadelphia, Pa. Cloth-measuring machine.	230,809	Aug. 3	242	70	18	286
Pfleger, George, et al. (See Blowney, Henry J., assignor.)						
Pfüger, Albert. (See Riedel and Pfüger.)						
Pflughaupt, Albert F., Jr., Brooklyn, N. Y. Sewer-gas trap.	228,674	June 8	611	164	17	1331
Pflughaupt, Albert F., Jr., Brooklyn, N. Y. Device for preventing the entrance of sewer-gas into buildings.	228,927	June 15	943	257	17	1338
Phariss, Albert. (See Jones and Phariss.)						
Phelan, Charles T., New York, N. Y. Window-netting.	225,021	Mar. 2	46	13	17	464
Phelps, Byron, Moline, Ill. Corn-planter.	225,719	Mar. 23	879	257	17	638
Phelps, Clinton D., Irving, Kans. Dumping-machine.	232,202	Sept. 14	391	109	18	597
Phelps, George H., et al. (See Wardwell, William S., assignor.) (Reissue.)						
Phelps, George H., West Newton, Mass. Garment-supporter.	232,413	Sept. 21	655	180	18	647
Phelps, Henry E., Marshall, Mich. Extension step-ladder.	229,552	July 6	55	15	18	16
Phelps, Wallace H., Alliance, Ohio. Drill for coal, &c.	235,288	Dec. 7	271	76	18	1325
Phelps, William E., Lewisville, Pa. Paper-machine.	223,381	Jan. 6	195	52	17	36
Phifer, George A., New Richmond, Ohio. Balance-scales.	221,038	Feb. 3	74	22	17	216
Phillbrick, Alvah A., Coldwater, Mich. Vehicle-wheel hub.	226,783	Apr. 20	745	208	17	892
Phillippi, Alexander, St. Louis, Mo. Harvester.	227,126	May 4	39	11, 12	17	985
Phillippi, Alexander, St. Louis, Mo. Drive-chain.	232,060	Sept. 7	219	60	18	560
Philippsohn, Jacob, et al. (See Stein, Hermann, assignor.)						
Phillips, Charles S., Brooklyn, N. Y. Sweat-house for curing tobacco.	223,928	June 15	945	257	17	1388
Phillips, Charles S., Brooklyn, N. Y. Apparatus for curing and sweating tobacco.	231,329	Nov. 9	612	167	18	1097
Phillips, Benjamin, Trenton, N. J. Puddling-furnace.	229,177	June 22	1229	337	17	1438
Phillips, Charles S. (See Sammis, John A., assignor.)						
Phillips, Eugene F. (See Sawyer, William H., assignor.)						
Phillips, Eugene F., Providence, R. I. Electrical conductor.	230,653	Aug. 3	69	19	18	258
Phillips, George C., Silver City, Nev. Sectional steam-packing.	235,894	Dec. 28	1040	287	18	1478
Phillips, George L. (See Floyd, George R., assignor.)						
Phillips, Harley. (See Phillips, Theodore and H.)						
Phillips, James M., Thornton, Ind. Washing-machine.	230,810	Aug. 3	244	70	18	287
Phillips, Joseph A., assignor of one-third to C. M. Brake and D. A. White, Eryant, Ind. Lifting-jack.	235,289	Dec. 7	272	76	18	1326
Phillips, Nimick & Co. (See Russell and McDonald, assignors.)						
Phillips, Simon G., Perth Amboy, N. J. Preparation of clay for the manufacture of pottery.	235,014	Nov. 30	1489		18	1263
Phillips, Theodore and H., Winchester, Iowa. Washing-machine.	229,178	June 22	1230	338	17	1438
Phillips, Walter P., Washington, D. C. Telegraph-key.	228,111	May 25	1197	341	17	1204
Phillips, William C., Newport, Ky. Rotary pump.	232,901	Oct. 5	127	33, 34	18	759
Phillips, William F., Watford, Ontario, Canada. Swing.	229,457	June 29	1561	430	17	1492

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Phillips, William H. (See Bevins, Barker, and Phillips.)						
Phillips, William H. (See Bevins and Phillips.)						
Phillips, William L., assignor of one-half interest to W. H. Warner, Brooklyn, N. Y. Radiator	223,382	Jan. 6	196	52	17	36
Phillips, William P., Boston, Mass. Locomotive-lubricator	228,215	June 1	64	19	17	1238
Phillips, William P., Boston, Mass. Lubricator	228,216	June 1	66	19	17	1238
Phillips, William P., Boston, Mass. Lubricator	228,217	June 1	67	20	17	1238
Phillips, William R., Milford, Del. Fruit-drier	228,673	June 8	610	164	17	1331
Philp, Andrew. (See Keith and Philp.)						
Phinney, Ezra S. (See Bohler and Phinney.)						
Phipps, Daniel G., New Haven, Conn. Hydraulic pipe	227,830	May 18	856	242	17	1138
Phipps, Joseph H., Fenton, Mich. Wood-cutting machine	221,556	Feb. 17	676	193	17	345
Phipps, Joseph H., Fenton, Mich. Type-writing machine	229,458	June 29	1561	{ 430 431 }	{ 17 }	1492
Phipps, Lowell & Co. (See Sebring, Thompson C., assignor.)						
Phoenix Manufacturing Company. (See White, Samuel, assignor.)						
Piaget, Frederick A. (See Piaget, Henry V. and F. A.)						
Piaget, Henry V., Jersey City, N. J., and F. A. Piaget, New York, N. Y., assignors to R. W. Peach, Paterson, N. J. Railway-rail	230,811	Aug. 3	244	70	18	287
Platt, William M., West Liberty, Ohio. Grain-binder	223,754	Jan. 20	654	176	17	133
Pichon, François. (See Orelle and Pichon.)						
Pickering, Cyrus C., et al. (See Eaton, Charles S., assignor.)						
Pickering, Paul R., Georgetown, Mass. Machine for marking and punching holes in shoe-quarters	231,191	Aug. 17	699	197	18	374
Pickering, Richard, Cleveland, Ohio. Automatic box-filler	225,072	Mar. 2	114	32	17	476
Pickering, William. (See Paulson, William and R., assignors.)						
Pieper, Wilhelm. (See Creager and Evans, assignors.)						
Pieper, Wilhelm, and J. Creager, Cincinnati, Ohio. Apparatus for drying bricks	226,188	Apr. 6	48	12	17	754
Pierce, Charles W., Oak Hill, N. Y. Door-hanger	232,843	Oct. 5	59	17	18	748
Pierce, Denison C., Chicago, Ill. Die for the manufacture of caps for railway-frogs	224,607	Feb. 17	741	210	17	355
Pierce, Ebenezer, New Bedford, Mass. Bomb-lance. (Reissue)	9,356	Aug. 24	1206	337	18	462
Pierce, George H. (See Bangs and Pierce.)						
Pierce, George H., San Francisco, Cal. Combination-tool	234,378	Nov. 9	666	182	18	1106
Pierce, George H., Richmond, Quebec, Canada, assignor of five-eighths to C. E. Butters and W. N. Conner, Boston, and R. H. Wadleigh, Newtonville, Mass. Mechanism for placing and soldering heads in cans	235,700	Dec. 21	791	{ 223 224 }	{ 18 }	1428
Pierce, Henry M., Grand Rapids, Mich. Furnace	223,383	Jan. 6	197	52	17	36
Pierce, John B., Buffalo, N. Y. Steam-heater	228,475	June 8	369	101	17	1295
Pierce, Mary F., Boston, Mass. Dust-pan	226,877	Apr. 27	879	245	17	925
Pierce, Robert. (See Prévost, Scraphin, assignor.)						
Pierce, Samuel B., assignor of one-half interest to C. W. Dill, La Crosse, Wis. Ring-burr for turning shafts	230,812	Aug. 3	245	70	18	287
Pierce, Stillman A., Fairfax, Vt. Sap-spout	225,762	Mar. 23	934	270	17	647
Pierpont, Joshua, assignor to Pierpont & Tuttle, Bushnell, Ill. Combined riding and walking cultivator	223,755	Jan. 20	656	177	17	134
Pierpont & Tuttle. (See Pierpont, Joshua, assignor.)						
Pierpont, William, Salem, N. J. Straw-carrier	227,649	May 18	651	185	17	1026
Pierston, Abram B., Montgomery, Ala. Seed-planter	225,022	Mar. 2	46	13	17	464
Piersons, Charles S., Sandy Hill, N. Y., assignor, by mesne assignments, to himself, J. A. Ober, and C. Ferris. Harness. (Reissue)	9,187	May 4	291	85	17	1106
Piggott, Joseph, Wadesville, W. Va. Horse-power	226,784	Apr. 20	745	208	17	892
Pihlgren, Konrad T., assignor of two-thirds interest to W. P. Hugunin and A. P. Martin, Chicago, Ill. Apparatus for retouching photo-negative plates	229,272	June 29	1336	367	17	1461
Pike, Charles F., Providence, R. I. Steam-boiler furnace	223,606	Jan. 13	482	{ 130 131 }	{ 17 }	96
Pike, Charles F., Philadelphia, Pa., assignor to International Submarine Company, New Haven, Conn. Hydro-steam-engine	228,555	June 8	474	{ 127 128 }	{ 17 }	1311
Pike, Charles F., Philadelphia, Pa., assignor to International Submarine Company, New Haven, Conn. Arm and attachment for diving-bells	228,556	June 8	477	128	17	1311
Pike, Charles F., Philadelphia, Pa., assignor to International Submarine Company, New Haven, Conn. Operating submarine grappling-tools	228,557	June 8	480	128	17	1312
Pike, Charles F., Philadelphia, Pa., assignor to International Submarine Company, New Haven, Conn. Electrical apparatus for operating valves	228,558	June 8	481	129	17	1312
Pike, Charles F., Philadelphia, Pa., assignor to International Submarine Company, New Haven, Conn. Diving-bell	230,197	July 20	808	{ 228 229 }	{ 18 }	149
Pillard, Oliver E., New Britain, Conn. Time-lock	225,862	Mar. 23	1044	299	17	665
Pimley, James E., Newark, N. J. Flower-pot	231,086	Aug. 10	565	159	18	346
Pinder, Charles, and W. A. Hardy, Fitchburg, Mass. Screen-plate for paper-making machines	226,545	Apr. 13	468	132	17	826
Pinder, Charles, and W. A. Hardy, Fitchburg, Mass. Screen-plate for paper-making machines	234,719	Nov. 23	1123	303	18	1196
Pine, Edward M., Camden, N. J. Upholstery-brush	230,051	July 13	624	174	18	110
Pine, James K. P., Troy, N. Y. Machine for shaping cuffs	221,794	Feb. 21	982	278	17	410
Pine, James K. P., Troy, N. Y. Machine for folding collar and cuff blanks	232,296	Sept. 14	501	139	18	616
Pine, Leighton, South Bend, Ind., assignor to Singer Manufacturing Company, Elizabeth, N. J. Bending wood	230,437	July 27	1131	318	18	206
Pinkham, George F. (See Tirrell, Jacob P., assignor.)						
Pinkham, George F., Quincy, J. P. Tirrell, Somerville, and W. S. Hill, Hyde Park, assignors to G. F. Pinkham, Quincy, Mass. Electric gas-lighting apparatus	230,567	July 27	1274	359	18	231
Pinn, Traverse B., Alexandria, Va. File-holder	231,352	Aug. 17	876	247	18	402
Pinney, Emerson D., and G. W. Daily, Aurora, Ill. Horse-collar	235,567	Dec. 14	630	180	18	1395
Pinney, Norman G., New Hudson, Mich. Plow	231,930	Sept. 7	59	15	18	534
Pinter, Francis T., Schulenburg, Tex. Bird-cage	229,634	July 6	140	39	18	29
Pinter, Francis T., Schulenburg, Tex. Sprinkler	233,431	Oct. 19	803	222	18	886
Pintsch, Julius. (See Pintsch, Richard J. and J.)						
Pintsch, Julius, Berlin, Prussia. Packing for gas engines and pipes	233,370	Oct. 19	729	199	18	873
Pintsch, Richard J. and J., Berlin, Germany. Pump for compressing illuminating-gas	235,646	Dec. 21	727	{ 206 207 }	{ 18 }	1417
Piper, Samuel A., Newton, (Upper Falls,) Mass. Weather-strip	227,051	Apr. 27	1087	300	17	957
Pipher, William A., Jasonville, Ind. Wagon-body elevator	232,414	Sept. 21	655	141	18	647
Piron, Simon, Paris, France. Finishing felt hats	230,813	Aug. 3	246	71	18	287
Pitchford, John B., Gold Hill, Nev. Air-compressor	233,432	Oct. 19	804	222	18	886
Pitman, Eben, Putnam, Conn. Automatic machine-brake	231,426	Nov. 16	751	202	18	1128
Pitner, Henry B., La Porte, Ind. Whip-socket	225,489	Mar. 16	605	175	17	581

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Pitney, Albert L., Washington, D. C. Line-clasp.....	230,435	July 27	1128	317	18	206
Pitney, Albert L., Washington, D. C. Rope or line clasp.....	230,436	July 27	1129	317	18	206
Pitt, William A., New York, N. Y. Filter.....	225,863	Mar. 23	1046	299	17	665
Pittmann, Edward, assignor to Plimpton Manufacturing Company, Hartford, Conn. En- velope-machine.....	235,453	Dec. 14	487	138 139 140 141 142	18	1371
Place, John B., New Lacyville, Pa. Hame.....	224,474	Feb. 10	575	166	17	317
Plain, Thomas, Elmira, N. Y. Locomotive lift-pipe.....	231,356	Aug. 17	877	247	18	402
Planche, Hippolyte and L., Salins, France. Envelope.....	225,864	Mar. 23	1048	299	17	666
Planche, Léon. (See Planche, Hippolyte and L.)						
Plant, Increase C., Macon, Ga. Car-axle.....	225,998	Mar. 30	1226	347	17	707
Platt, Clark M., and W. W. Bradley, Waterbury, Conn.; said Bradley assignor to said Platt. Rivet or eyelet setting machine.....	229,459	June 29	1563	431	17	1492
Platter, William D. (See Adams and Platter.)						
Pleasance, George H., Cleveland, Ohio. Elevator.....	224,723	Feb. 17	861	246	17	376
Plimpton, Edward S., Denison, Iowa. Planter.....	228,112	May 25	1197	341	17	1204
Plimpton, Edward S., Denison, Iowa. Wagon-brake lever.....	230,334	July 20	974	276	18	174
Plimpton, Edward S., Denison, Iowa. Car-coupling.....	230,493	July 27	1198	337	18	218
Plimpton Manufacturing Company. (See Pittmann, Edward, assignor.)						
Plocher, Christian, Cleveland, Ohio. Indicator for bakers' ovens.....	227,650	May 18	652	185	17	1106
Plumb, Adclmer D., Grand Rapids, Mich. Carpet-sweeper.....	233,371	Oct. 19	730	200	18	873
Plumb, Burdick & Barnard. (See Worsley, Samuel L., assignor.)						
Plumb, Fayette R. (See Yerkes, Jonathan, assignor.)						
Plume & Atwood Manufacturing Company. (See Atwood, Lewis J., assignor.)						
Plumer, William, assignor to himself, W. Plumer, Jr., and F. N. Lord, Lexington, and G. B. Jones, Newton, Mass. Process and apparatus for the manufacture of fertilizers.....	228,387	June 1	255	72	17	1268
Plummer, Hiram, deceased, assignor, by mesne assignments, to Plummer Sewing Machine Company, Brooklyn, N. Y. Device for guiding and feeding straw-braid sewing-ma- chines. (Reissue).....	9,082	Feb. 17	915	261 262	17	386
Plummer, Hiram, deceased, assignor, by mesne assignments, to Plummer Sewing Machine Company, Brooklyn, N. Y. Feeding device for straw-braid sewing-machines. (Reissue).....	9,083	Feb. 17	918	262	17	386
Plummer Sewing Machine Company. (See Plummer, Hiram, assignor.) (Reissue.)						
Plunkett, Riley D., and J. P. Rollins, Little Rock, Ark. Heel.....	235,290	Dec. 7	273	76	18	1326
Plympton, Charles R., New York, N. Y. Pantaloon-elevator.....	234,427	Nov. 16	751	202	18	1125
Poage, John N., Cincinnati, Ohio. Watering-column for railway water-tanks.....	223,607	Jan. 13	486	131	17	97
Poage, John N., Cincinnati, Ohio. Watering-column. (Reissue).....	9,502	Dec. 21	963	268	18	1458
Poffenberger, Lewis R. (See Szink, Henry C., assignor.)						
Pogue, Robert E., Quincy, Ky. Car-coupling.....	232,061	Sept. 7	219	60	18	560
Pohl, Anton, Baltimore, Md. Spark-arrester.....	230,568	July 27	1276	359	18	231
Pohl, Carl. (See Nanmann and Pohl.)						
Pohl, E. Otto, Philadelphia, Pa. Gearing for adjustable awnings.....	227,920	May 25	980	281	17	1169
Pohl, Herrmann. (See Vorpahl and Pohl.)						
Poindexter, Charles W. (See Buckingham and Poindexter.)						
Poinsett, Joseph L., Newport, Ky. Hame-hasp.....	235,568	Dec. 14	631	180	18	1395
Poirrier, Alcide F. (See Roussin, François Z., assignor.)						
Poitvent, Junius, Ocean Springs, Miss. Traction-engine.....	230,052	July 13	625	174	18	111
Pole, Charles W. (See Kinney, Israel, assignor.)						
Polen, Calvin W., Hazel Dell, Ill. Buckle.....	235,015	Nov. 30	1491	401	18	1263
Polk, Leonidas L., Raleigh, N. C. Medicine for the treatment of diphtheria.....	223,859	Jan. 27	800	.....	17	167
Pollard, Edward T. (See Holly, Harrison W., assignor.)						
Pollard, Edward T., assignor of one-fourth interest to H. W. Holly, Lynchburg, Va. Ma- chine for making plug-tobacco.....	225,865	Mar. 23	1049	300	17	666
Pollard, Henry M., Providence, R. I. Fertilizer.....	232,756	Sept. 28	1053	.....	18	721
Pollitt, Joseph, et al. (See Wolstencroft, James, assignor.)						
Pomeroy, A. J., et al. (See Hoffman, Austin D., assignor.)						
Pomeroy, Henry N., Bristol, Wis. Millstone-driver.....	224,350	Feb. 10	437	125	17	295
Pomeroy, James V., Boulder, Colo. Extracting gold and silver from ores.....	233,799	Oct. 26	1239	.....	18	969
Pomeroy, Oscar C., assignor of one-half interest to G. D. Dates, Portage, Wis. Lacing-belts.....	228,390	June 1	260	73	17	1268
Pomeroy, Seneca G., Kings Ferry, N. Y. Cultivator.....	224,039	Feb. 3	74	23	17	216
Pond & Bradford Boiler Company. (See Pond, Goldsbury H., assignor.)						
Pond, Chester H., New York, N. Y. Electrical indicator.....	231,970	Sept. 7	120	30	18	543
Pond, Chester H., New York, N. Y. Electrical visual indicator.....	232,415	Sept. 21	656	181 182	18	647
Pond, Chester H., New York, N. Y. Automatic transmitter for electrical indicators.....	235,569	Dec. 14	632	180	18	1395
Pond, David W. (See Hildreth, Samuel E., assignor.)						
Pond, Goldsbury H., assignor to Pond & Bradford Boiler Company, New York, N. Y. Sec- tional steam-boiler.....	223,451	Jan. 13	297	79	17	66
Pond, Goldsbury H., assignor to Pond & Bradford Boiler Company, New York, N. Y. Steam-boiler.....	226,189	Apr. 6	49	12	17	754
Pond, Goldsbury H., New York, N. Y. Steam radiator and generator.....	232,844	Oct. 5	59	17	18	748
Pond, Levi F., Ludlow, Mass. Expanding drill.....	225,720	Mar. 23	882	257	17	639
Pond, Philander. (See Benner & Pond.) (Reissue.)						
Pons y Pon, Francisca, New York, N. Y. Composition for laundry use.....	232,543	Sept. 21	806	.....	18	673
Pont, Addie M., assignor to J. H. Holly and E. B. Taylor, Warwick, N. Y. Loom for weav- ing tubular fabrics.....	223,534	Jan. 13	401	106 107	17	83
Pool & Macy, John H. (See Macy, William H., Jr., assignor.)						
Poole, Ferdinando, Emporia, Kans. Hedge-fence layer.....	225,073	Mar. 2	116	32, 33	17	476
Poole, Samuel, Brooklyn, N. Y. Alarm-bolt.....	223,384	Jan. 6	199	52	17	36
Poole, William H., and D. Bowes, Chicago, Ill. Hand-stamp.....	227,295	May 4	230	68	17	1016
Pope, Alexander. (See Goodridge and Pope.)						
Pope, Edith A., Boston, Mass. Painter's palette.....	230,894	Aug. 10	359	103	18	313
Pope, Henry L. (See Archer and Pope.)						
Pope, John G., Bloomington, Ill. Drill-press attachment.....	234,687	Nov. 23	1090	293	18	1190
Pope, John L., Cleveland, Ohio. Composition of matter.....	226,547	Apr. 13	470	132	17	836
Pope, William, Bucyrus, Ohio. Stocking and method of manufacturing the same.....	226,878	Apr. 27	880	245	17	925
Poplam, James, Montreal, Quebec, Canada. Seam for boots and shoes.....	230,654	Aug. 3	72	20	18	258
Porcupine, James H., Parkersburg, Iowa. Refrigerator.....	224,222	Feb. 3	285	82	17	251
Porter, Benjamin, and E. D. Barnum, Canaseraga, N. Y. Lifting-jack.....	230,569	July 27	1277	360	18	231
Porter, Charles T., et al. (See Allen, John F., assignor.) (Reissue.)						
Porter & Co., Dilworth. (See Haskin, Uri, assignor.)						
Porter, Cyrus H. (See Tapley and Porter.) (Reissue.)						
Porter, David S., Davenport, N. Y. Button.....	230,814	Aug. 3	248	71	18	287

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Porter, Edward E., Cincinnati, Ohio. Chair for attaching to door-steps, &c.	227,832	May 18	859	244	17	1138
Porter, Edward N., Morrisville, Vt. Bracket-piece for screen-frames.	230,438	July 27	1132	318	18	206
Porter, George S. (See Stockman, Walter S., assignor.)						
Porter, Henry K., Boston, Mass. Bolt-cutter.	226,190	Apr. 6	50	13	17	755
Porter, Isaac, Philadelphia, Pa. Can.	227,052	Apr. 27	1088	301	17	957
Porter, Isaac, Philadelphia, Pa. Can.	229,749	July 6	275	77	18	49
Porter, John A., Oakland Mills, Ky. Grain measure and register.	234,804	Nov. 23	1232	331	18	1213
Porter, John F., Wooster, Ohio. Artificial teeth.	233,013	Oct. 5	257	71	18	780
Porter, Thomas W., Chelsea, Mass. Spring-saddle clip.	235,807	Dec. 21	914	255	18	1449
Portner, Robert, Alexandria, Va., and B. E. J. Eils, Washington, D. C. Process of and apparatus for cooling air.	229,750	July 6	276	78	18	49
Posen, Carl, Offenbach-on-the-Main, Germany. Fastening for pocket-books, &c.	234,805	Nov. 23	1233	332	18	1213
Posen, Carl, Offenbach-on-the-Main, Germany. Clasp for albums, &c.	235,016	Nov. 30	1492	401	18	1264
Posen, Sidney, Offenbach-on-the-Main, Germany. Clasp for albums.	223,756	Jan. 20	658	177	17	134
Post, Charles C. (See Cady, George L., assignor.) (Reissue.)						
Post & Co. (See Briggs, Arthur E., assignor.)						
Post, William H., et al. (See Mervesp, John J., assignor.)						
Posz, Michael, Shelbyville, Ind. Bill-file case.	226,349	Apr. 6	226	65, 66	17	787
Potter, Albert, assignor of one-half interest to D. Curtis, Springwater, N. Y. Concave for thrashing-machines.	233,544	Oct. 19	932	257	18	908
Potter, Benjamin F. (See Gates and Potter.)						
Potter, Benjamin F., et al. (See Gates, George W., assignor.)						
Potter, Charles, Jr., Plainfield, N. J. Reversing mechanism for printing-presses.	229,273	June 29	1337	367	17	1462
Potter, Charles, Jr., Plainfield, N. J. Delivery apparatus for printing-machines.	229,635	July 6	141	40	18	30
Potter, Charles, Jr., Plainfield, N. J. Delivery apparatus for printing-machines.	232,203	Sept. 14	392	109	18	597
Potter, Homer J., Centralia, Kans. Plow attachment for cultivators.	234,060	Nov. 2	285	79	18	1033
Potter, John C., Orwell, N. Y. Machine for preparing wood pulp.	233,014	Oct. 5	258	71	18	781
Potter, John E., Providence, R. I. Nursing-bottle.	224,557	Feb. 17	677	193	17	345
Potter, John F., Bellefonte, Pa. Farm-gate.	226,102	Mar. 30	1343	379	17	725
Potter, John S. (See Keyes, Benjamin B., assignor.)						
Potter, Lorenzo, Chicago, Ill. Hand-stamp.	232,145	Sept. 14	315	89	18	584
Potter, Morton, Mendon, Mich. Sand-band for vehicle-wheels.	234,795	Feb. 24	983	278	17	410
Potter, Morton, Mendon, Mich. Apparatus for slinging and elevating hay.	229,553	July 6	55	15	18	16
Potter, Nathaniel F., trustee, et al. (See Grandy, Daniel B., assignor.)						
Potter, Robert M. (See Sloane and Potter.)						
Potter, Thomas O., Boston, Mass. Suspender-end.	225,639	Mar. 16	775	227	17	611
Potter, Thomas O., Boston, Mass. Metallic housing for suspender-pulleys.	226,928	Apr. 27	940	261	17	934
Potter, Wilson L., Hartford, Conn. Belt-fastener.	226,546	Apr. 13	470	132	17	836
Pothhoff, Ludwig, Berlin, Prussia, Germany. Draft attachment for vehicles.	232,297	Sept. 14	502	140	18	616
Potts, Isaac B., Columbus, Ohio. Fire-place water-heater.	228,388	June 1	258	72	17	1268
Potts, Joseph H., Philadelphia, Pa. Electro-deposition of nickel.	223,860	Jan. 27	800	.....	17	167
Potts, Joseph H., Philadelphia, Pa. Solution for the electro-deposition of nickel.	232,755	Sept. 28	1052	.....	18	721
Potts, Mary F., assignor, by mesne assignments, to Enterprise Manufacturing Company and American Machine Company, Philadelphia, Pa. Sad-iron. (Reissue.)	9,020	Jan. 6	250	66	17	46
Potvin, Gelos L., Alpena, Mich. Horseshoe.	226,879	Apr. 27	881	245	17	925
Pouch, A. J. (See Alexander, John W., assignor.)						
Ponchet, James, Paris, and G. Sautereau, Chabris, France. Lock and lock-gate for canals, &c.	227,831	May 18	857	{ 243 } { 244 }	17	1138
Poullain, Charles. (See Poullain, Ernest and C.)						
Poullain, Ernest and C., Paris, France. Driving-belt.	235,018	Nov. 30	1493	402	18	1264
Powell, Howard M., Taylorville, Ill. Car-starter.	234,330	Nov. 9	613	167	18	1097
Powell, Albert T., Poughkeepsie, N. Y. Motor for working churns, &c.	234,061	Nov. 2	286	79	18	1034
Powell, Edwin R., Burlington, Vt. Atmospheric engine.	231,971	Sept. 7	123	31	18	544
Powell, Ezekiel D., Yates township, McLean county, Ill. Cultivator.	231,846	Aug. 31	1458	409	18	508
Powell, James, Cincinnati, Ohio. Solution for electro-deposition of nickel.	229,389	June 1	258	.....	17	1268
Powell, James, Cincinnati, Ohio. Nickel-depositing solution.	229,274	June 29	1338	.....	17	1462
Powell, Louis W., Mexia, Tex. Sulky-plow.	230,335	July 20	974	276	18	175
Powell, Thomas, Stockton, Cal. Gang-plow.	232,845	Oct. 5	60	17	18	748
Powers, Charles E., Boston, Mass. Elevated railway.	233,015	Oct. 5	259	71	18	781
Powers, Charles E., Boston, Mass. Car attachment for elevated railways.	233,016	Oct. 5	260	72	18	781
Powers, Charles F., assignor to himself and Sutherland Falls Marble Company, Sutherland Falls, Vt. Tile facing and squaring machine.	228,929	June 15	946	257	17	1389
Powers, David J., Chicago, Ill. Tightening device for woven-wire mattresses. (Reissue.)	9,104	Mar. 2	253	71	17	501
Powers, David J., assignor to Union Wire Mattress Company, Chicago, Ill. Woven-wire-mattress frame. (Reissue.)	9,105	Mar. 2	254	71	17	501
Powers, Edward B., and J. H. Stevens, Weymouth, Mass.; said Stevens assignor to said Powers. Tool-heating device.	233,801	Oct. 26	1241	345	18	970
Powers, Francis G., Moweaqua, Ill. Clothes-pounder.	233,800	Oct. 26	1240	345	18	969
Powers, Frank B., Springfield, Mass. Signaling apparatus for telephone-lines.	231,087	Aug. 10	566	{ 159 } { 160 }	18	346
Powers, James J., Brooklyn, N. Y. Operating water-closet valves.	232,902	Oct. 5	129	34	18	759
Powers, Jay W., assignor to N. B. Blackmer, Portage, Wis. Milk-purifying and cream-raising apparatus.	224,844	Feb. 24	1033	294	17	418
Powers, Jay W., Portage, Wis. Pump.	230,149	July 20	756	211	18	141
Powers, Titus, New York, N. Y. Bung for barrels.	232,903	Oct. 5	130	34	18	759
Powers, William H., and J. H. Walker, Grand Rapids, Mich. Burial-casket.	228,836	June 15	847	231	17	1375
Powles, Daniel D., assignor of one-half to J. C. Powles, Blue Mound, Ill. Bee-hive.	235,570	Dec. 14	635	{ 180 } { 181 }	18	1395
Powles, John C. (See Powles, Daniel D., assignor.)						
Praeger, Henry, assignor to W. Knabe & Co., Baltimore, Md. Music-desk for piano-fortes.	226,676	Apr. 20	636	177	17	873
Praetorius, Georg, Breslan, Prussia, Germany. Apparatus for cooling, disinfecting, perfuming, &c.	235,960	Dec. 28	1127	311	18	1491
Praetorius, Georg, Breslan, Prussia, Germany. Preparing clay to obtain porous and slagged bodies.	235,961	Dec. 28	1128	{ 311 } { 312 }	18	1492
Prabl, Charles, assignor to L. Fried, New York, N. Y. Fan.	235,808	Dec. 21	915	255	18	1449
Prairie, Joseph P., Raleigh, N. C. Combined cotton-planter and guano-distributor.	232,204	Sept. 14	393	109	18	597
Prall, Justus H. R., Elmira, N. Y. Transom-lifter.	229,179	June 22	1231	338	17	1439
Prang, Louis, Boston, Mass. Printing on textile fabrics.	224,949	Feb. 24	1143	.....	17	437
Pratt, Amos, Geneva, Nebr. Weather-strip.	233,277	Oct. 12	588	162	18	843
Pratt, Daniel R., assignor to L. A. Pratt, New York, N. Y. Rubber shoe.	234,720	Nov. 23	1124	303	18	1196
Pratt, Edgar M. (See Underhill, Aaron J., assignor.)						
Pratt, Elbridge S., Chicago, Ill. Clamp for holding the uppers of boots and shoes.	226,191	Apr. 6	51	13	17	755
Pratt, Elbridge S., Chicago, Ill. Welt for boots and shoes.	226,192	Apr. 6	52	13	17	755
Pratt, Elbridge S., Chicago, Ill. Manufacture of boots and shoes.	226,193	Apr. 6	53	13, 14	17	755



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Pratt, Elias E., Norwood, Mass. Car-door hanger.....	227,127	May 4	40	12	17	985
Pratt, Frederic S., Worcester, Mass. Adjustable foot-rest for car-seats.....	226,194	Apr. 6	55	14	17	755
Pratt, George, Southsea, county of Hampshire, England. Buckle.....	235,895	Dec. 28	1041	287	18	1478
Pratt, George M., <i>et al.</i> (See North, John, assignor.)						
Pratt, George M., assignor to Victor Sewing Machine Company, Middletown, Conn. Mechanism for operating the feed and shuttles of sewing-machines.....	226,550	Apr. 13	473	133	17	836
Pratt, James A. (See Spielman, William, assignor.)						
Pratt, James A. (See Van Vorst and Pratt.)						
Pratt, John H., Allentown, N. J. Paper-presser for type-writing machines.....	232,757	Sept. 28	1054	289	18	721
Pratt, Julius A., New Orleans, La., assignor of one-half interest to W. Whann. Medical compound.....	231,611	Ang. 24	1167	.....	18	455
Pratt & Letchworth. (See Latta, Enmit G., assignor.)						
Pratt, Lucy A. (See Pratt, Daniel R., assignor.)						
Pratt, Martin V. (See Libby, Caleb A., assignor.)						
Pratt, Nathaniel W. (See Babcock, Wilcox, and Pratt.)						
Pratt, Thomas C., and H. J. S. Lewis, Grafton, N. Y. Feathering paddle-wheel.....	225,999	Mar. 30	1227	347	17	707
Pratt & Whitney Company. (See Gardner and Parkhurst, assignors.)						
Pratt & Whitney Company. (See Parkhurst, Edward G., assignor.)						
Pray, John. (See Mussells and Pray.)						
Preator, James H., Brooklyn, N. Y. Jacket for shipping-drums.....	223,949	Jan. 27	908	241	17	184
Preator, James H., Brooklyn, N. Y. Bag for packing and storing.....	229,333	June 29	1419	389	17	1472
Préfontaine, Herménégilde, Troy, N. Y. Torch.....	228,476	June 8	370	101	17	1296
Préfontaine, Herménégilde, Troy, N. Y. Torch.....	233,163	Oct. 12	454	125	18	819
Prendergast, Robert, Sydney, New South Wales, and R. Free, Mistley, county of Essex, England. Compressed malt.....	234,428	Nov. 16	752	.....	18	1127
Prentice, George W., Providence, R. I. Instrument for setting buttons.....	226,549	Apr. 13	472	133	17	836
Prentiss, E. Freeman, Philadelphia, Pa. Apparatus for rectifying spirits.....	228,113	May 25	1198	342	17	1204
Prentiss, Joseph L., Cañon City, Colo. Pneumatic drill-hole cleaner.....	224,558	Feb. 17	677	193	17	345
Presbrey, Edward F. (See Dolloff, Wellington F., assignor.)						
Presbrey, Oliver S., Port Henry, N. Y. Pneumatic engine.....	231,446	Ang. 24	982	276	18	427
Presbrey, Oliver S., Port Henry, N. Y. Friction-clutch.....	234,890	Nov. 30	1339	361	18	1238
Prescott, Charles W., Franklin, N. H. Mirror-hanger.....	234,609	Nov. 16	981	261	18	1167
Prescott, De Witt C., Marinette, Wis. Reciprocating-saw mill.....	226,350	Apr. 6	227	66	17	787
Prescott, De Witt C., Marinette, Wis. Reciprocating-saw mill.....	231,192	Ang. 17	700	197	18	374
Prescott, Edwin, Hampton Falls, N. H., assignor to J. B. Johnson, Boston, Mass. Time-registering clock.....	223,535	Jan. 13	402	107	17	83
Prescott, Edwin, Hampton Falls, N. H. Railway-car door.....	229,052	June 22	1098	298	17	1419
Prescott, Edwin, Hampton Falls, N. H. Blind-operator.....	231,931	Sept. 7	59	15	18	534
Prescott, George B. (See Edwards, John R., assignor.)						
Prescott, Scott & Co. (See Blanchet, Zulma, assignor.)						
Pressey, George W., assignor of one-fourth interest to E. L. Crowell, Hammonton, N. J. Velocipede.....	233,640	Oct. 26	1064	296	18	939
Pressey, George W., assignor of one-half interest to E. L. Crowell, Hammonton, N. J. Scythe and other blade fastenings.....	234,721	Nov. 23	1126	303	18	1196
Pressey, George W., assignor of one-fourth to E. L. Crowell, Hammonton, N. J. Velocipede.....	234,722	Nov. 23	1127	304	18	1196
Preston, Everett B. (See McGaffey, Ives W., assignor.) (Reissue.)						
Preston, Everett B., Chicago, Ill. Shoe.....	234,723	Nov. 23	1128	304	18	1197
Preston, John C., Arcata, Cal. Wind-wheel.....	232,205	Sept. 14	395	110	18	597
Prenss, Carl, assignor to R. Zirngiebel, Berlin, Germany. Machine for turning flat-sided objects.....	236,079	Dec. 28	1261	348	18	1514
Prensser, Richard F., Easton, Pa. Ice-creeper.....	228,114	May 25	1200	342	17	1204
Prevar, Herbert P., assignor to W. D. Earl & Co., Leominster, Mass. Construction of combs and other articles of horn and shell.....	235,571	Dec. 14	635	181	18	1395
Prévost, Seraphin, New York, N. Y., assignor of one-half interest to R. Pierce, New York. Combined setting-rule and bodkin.....	233,545	Oct. 19	934	257	18	908
Prewitt, William Q., Winchester, Ky. Mechanism for adjusting teeth for grain-drills.....	225,640	Mar. 16	776	227	17	611
Price, Edward, Pomeroy, Iowa. Milk-cooler.....	229,180	June 22	1231	338	17	1439
Price, Edward A. (See Stewart and Price.)						
Price, Eldridge C., Baltimore, Md. Hammock-support and tent-frame.....	235,809	Dec. 21	916	255	18	1450
Price, Henry F., Philadelphia, Pa. Sash-fastening.....	227,833	May 18	859	245	17	1138
Price, Jacob, assignor of one-half interest to F. A. Hill, San Leandro, Cal. Baling-press....	232,298	Sept. 14	503	{ 140 141 }	{ 18 18 }	{ 616 616 }
Price, J. B. (See Stewart, William H., assignor.)						
Price, John A. (See McClave, William, assignor.)						
Price, Joseph W., Bryan, Ohio. Bed-bottom.....	223,385	Jan. 6	200	53	17	37
Price, Levi, Creston, Ill. Attachment for plows.....	224,223	Feb. 3	286	82	17	251
Price, V. Clarence, <i>et al.</i> (See Wilson, Merrick F., assignor.)						
Price, William. (See Hickman, William B., assignor.)						
Prichard, Henry, New York, N. Y. Reel.....	235,017	Nov. 30	1492	402	18	1264
Prichard, Joseph H., assignor of two-thirds interest to J. Q. and C. A. Jackson, Petersburg, Va. Drier.....	232,544	Sept. 21	807	223	18	673
Pridgen, William A., assignor of one-half interest to D. N. Tanner, Saltillo, Miss. Hay and cotton press.....	230,053	July 13	626	175	18	111
Pridmore, Henry E., assignor of two-thirds interest to B. E. Huntley and C. D. Dewey, Brockport, N. Y. Grain-binder.....	226,785	Apr. 20	746	209	17	892
Pridmore, Henry E., Springfield, Ohio. Grain-binder.....	234,806	Nov. 23	1234	332	18	1213
Priest, Albert W., Kaukauna, Wis. Feed mechanism for wood-pulp mills.....	228,477	June 8	372	102	17	1296
Priest, George. (See Chaffee and Priest.)						
Priest, Joseph K., Nashua, N. H. Anima-clipper.....	233,695	Oct. 26	1124	314	18	949
Prince, Louis, Jersey City Heights, N. J. Invalid-bedstead.....	229,460	June 29	1565	431	17	1493
Prince, Louis, Nashville, Ohio. Invalid-bedstead.....	229,910	July 13	465	129	18	86
Prince, Louis, Nashville, Ohio. Car-door-operating mechanism.....	230,570	July 27	1278	360	18	231
Prince, Thomas. (See Robinson, Andrew J., assignor.)						
Prindle, John A., Cleveland, Ohio. Harrow.....	227,445	May 11	415	{ 120 121 }	{ 17 17 }	{ 1056 1056 }
Prindle, William, Santa Clara, Cal. Track-clearer for mowers.....	229,181	June 22	1233	339	17	1439
Pringle, William T., New York, N. Y. Machine for cutting the corners of books, cards, and paper.....	224,475	Feb. 10	576	166	17	317
Prinz, Faustin, assignor of one-half to J. K. Gehrig, Dundas, Minn. Machine for separating foreign matter from grain, &c.....	234,724	Nov. 23	1129	304	18	1197
Prior, Samuel, Trenton, N. J. Machinery for molding boot and shoe stiffeners.....	235,962	Dec. 28	1129	{ 312 313 }	{ 18 18 }	{ 1492 1492 }
Pritchard, Charles L., assignor of one-half interest to J. Kuntz, Dubuque, Iowa. Carriage-top.....	232,299	Sept. 14	505	141	18	616

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Pritchett, Enoch W., Cataract, Ind. Vehicle-brake.....	227,296	May 4	232	68	17	1016
Pritz, Jacob A. (See Shaffer, Joseph, assignor.)						
Probasco, Abraham B., Lebanon, Ohio. Lifting-jack.....	232,367	Sept. 21	600	165	18	638
Proctor, David R., Gloucester, assignor to E. Walden, trustee, Lynn, Mass. Spark-ar- rester.	231,610	Aug. 24	1165	326	18	455
Proctor, David R., Gloucester, assignor to himself, C. E. and C. H. Wing, D. Hunt, Jr., J. F. Bliss, Boston, and E. B. Welch, Cambridge, Mass. Plow for cutting lumber.....	234,062	Nov. 2	288	79	18	1034
Proctor, Josiah K., and J. H. Knowles, Philadelphia, Pa. Wool-washing machine.....	227,053	Apr. 27	1089	{ 301 302 }	{ 17 18 }	{ 957 402 }
Proctor, Josiah K., Philadelphia, Pa. Burring and ginning cylinder.....	231,357	Aug. 17	877	247	18	402
Proell, Wilhelm R. (See Jurisch, Lewis, Proell, and Scharowsky.)						
Prosser, Treat T., Chicago, Ill. Freight-car.....	224,724	Feb. 17	862	{ 246 247 }	{ 17 17 }	{ 377 377 }
Prosser, Treat T., Chicago, Ill. Grain-cart.....	224,725	Feb. 17	865	247	17	377
Prosser, Treat T., Chicago, Ill. Freight-car.....	224,726	Feb. 17	866	247	17	377
Prosser, Treat T., Chicago, Ill. Car for common roads.....	224,727	Feb. 17	868	248	17	377
Prosser, Treat T., Chicago, Ill. Freight-car.....	224,728	Feb. 17	869	248	17	377
Prosser, Treat T., Chicago, Ill. Freight-car.....	224,729	Feb. 17	871	248	17	378
Prosser, Treat T., Chicago, Ill. Steam-engine.....	224,950	Feb. 24	1144	327	17	437
Prosser, Treat T., Chicago, Ill. Cylinder-car.....	231,089	Aug. 10	568	160	18	346
Prosser, Treat T., Chicago, Ill. Wire-coiling machine.....	231,090	Aug. 10	570	161	18	347
Prosser, Treat T., Chicago, Ill. Machine for stretching wire mattresses.....	231,091	Aug. 10	571	161	18	347
Prosser, Treat T., Chicago, Ill. Grain-cart.....	231,092	Aug. 10	572	162	18	347
Prosser, Treat T., Chicago, Ill. Wire-coiler.....	231,093	Aug. 10	574	162	18	347
Prosser, Treat T., Chicago, Ill. File-cutting machine.....	231,094	Aug. 10	574	162	18	347
Prosser, Treat T., Chicago, Ill. Car-wheel.....	231,095	Aug. 10	576	163	18	348
Prosser, Treat T., Chicago, Ill. Car-wheel.....	231,096	Aug. 10	576	163	18	348
Prouty, Augustus B., Worcester, Mass. Latch.....	224,040	Feb. 3	75	23	17	216
Prouty, Augustus B., Worcester, Mass. Adjustable nozzle for hose.....	225,721	Mar. 23	883	258	17	639
Prouty, Augustus B., Worcester, Mass. Lock.....	235,963	Dec. 28	1131	313	18	1492
Prouty, Joel H., and S. S. Sprague, Worcester, Mass. Burr-roll for loom-templates. Providence Tool Company. (See Crandall, Benjamin P., assignor.) (Reissue.)	226,548	Apr. 13	471	132	17	836
Prowse, George R., Montreal, Quebec, Canada, assignor to Magee Furnace Company, Bos- ton, Mass. Range.....	235,100	Dec. 7	41	13	18	1288
Pruden, Henry B., Dayton, Ohio. Door-check.....	226,786	Apr. 20	750	209	17	892
Prusha, William F. (See Brigham, Hewitt, and Prusha.)						
Pruyn, Henry S., Centre White Creek, N. Y. Combined cradle and carriage.....	226,458	Apr. 13	362	104	17	819
Pruyn, Robert C., and C. M. Hyatt, Albany, N. Y., assignors to Embossing Company. Book-slate.....	227,574	May 11	560	160	17	1081
Pruyn, Robert C., and C. M. Hyatt, Albany, N. Y., assignors to Embossing Company. Or- nammenting wood.....	234,610	Nov. 16	982	261	18	1167
Prybil, Paul, New York, N. Y. Circular sawing machine.....	228,218	June 1	68	20	17	1238
Pryce, Charles. (See Crutchley, Frederick, assignor.)						
Puckett, William S., Sumterville, Ala. Damper for boilers.....	235,572	Dec. 14	636	181	18	1395
Puffer, Alvin D. and L. W., Boston, Mass., assignors to themselves and A. D. Puffer & Sons. Soda-fountain.....	226,103	Mar. 30	1345	379	17	726
Puffer, Alvin D., Jr., assignor to A. D. Puffer & Sons, Boston, Mass. Soda-fountain.....	226,195	Apr. 6	56	14	17	756
Puffer, Alvin D., Boston, Mass. Beer-cooler.....	230,815	Aug. 3	249	71	18	287
Puffer, Alvin D., Boston, Mass. Soda-water-dispensing apparatus.....	231,447	Aug. 24	984	277	18	427
Puffer, Alvin D., Boston, Mass. Agitator for soda-water receivers and generators.....	231,847	Aug. 31	1459	410	18	508
Puffer, Alvin D., Boston, Mass. Apparatus for cooling soda-water and other liquids. (Re- issue.)	9,463	Nov. 16	1025	274	18	1174
Puffer, Luther W. (See Puffer, Alvin D. and L. W.)						
Puffer & Sons, Alvin D. (See Puffer, Alvin D., Jr., assignor.)						
Puffer & Sons, Alvin D. (See Puffer, Alvin D. and L. W., assignors.)						
Pulaski, Morris H., Philadelphia, Pa. Show-box. (Reissue).....	9,185	May 4	288	84	17	1026
Pulaski, Morris H., Philadelphia, Pa. Show-box.....	227,128	May 4	41	12	17	985
Pulliam, Luther, assignor of one-half interest to G. G. Duggins, Miami, Mo. Vehicle-spring. Pulliam, William J., Jefferson City, Mo. Drag-saw machine.....	226,929	Apr. 27	941	261	17	934
225,164	Mar. 2	206	58	17	492	
Pullinger, George B., assignor of one-half to M. M. Owens, Philadelphia, Pa. Insect-guard for windows.....	235,810	Dec. 21	917	256	18	1450
Pullinger, George B., assignor of one-half to M. M. Owens, Philadelphia, Pa. Insect-screen.....	235,811	Dec. 21	918	256	18	1450
Pullinger, George B., assignor of one-half to M. M. Owens, Philadelphia, Pa. Insect-screen.....	235,812	Dec. 21	918	256	18	1450
Pullman, Albert B., et al. (See Coyle, Charles J., assignor.)						
Purcell, John. (See Garrigus, Culberson S., assignor.)						
Purdy, Chester. (See Heston and Purdy.)						
Purdy, Elida H., et al. (See Fanning, John, assignor.)						
Purdy, James E., Tallahassee, Fla. Car-coupling.....	223,244	Jan. 6	41	10	17	10
Purdy, John H., Chicago, Ill. Fastening for ear-rings, &c.....	227,922	May 25	981	281	17	1169
Purdy, John H., Chicago, Ill. Watch-glass.....	227,923	May 25	982	282	17	1169
Purdy, John H., Chicago, Ill. Lamp.....	232,206	Sept. 14	396	110	18	597
Purdy, John S., Brooklyn, N. Y. Fountain-pen.....	232,545	Sept. 21	808	223	18	673
Purinton & Smith. (See Smith, Fred. W., assignor.)						
Purple, George E., Howard City, Mich. Sand-band.....	226,787	Apr. 20	751	209	17	893
Pursell, George M., San José, Cal. Washing-machine.....	235,168	Dec. 7	130	37	18	1303
Pursell, Harry D., Washington Court-House, Ohio. Grate-front.....	225,074	Mar. 2	117	33	17	476
Pursell, Harry D., Washington Court-House, Ohio. Ash-pan lifter.....	227,921	May 25	981	281	17	1169
Pursell, Harry D., Washington Court-House, Ohio. Window-frame pocket.....	232,616	Sept. 28	892	246	18	694
Pursell, John R., Blackfriars, London, England. Apparatus for moving tram-cars.....	231,097	Aug. 10	577	{ 163 164 }	{ 18 18 }	{ 348 348 }
Purves, Thomas C., Chicago, Ill. Water-gage.....	226,418	Apr. 13	312	90	17	812
Püschner, Moritz, Grolitz, Prussia, Germany. Machine for making elbow-pipes.....	232,368	Sept. 21	601	165	18	638
Pusey, Joshua, assignor to C. R. Wilson, Philadelphia, Pa. Apparatus for delivering rail- way-ties from cars.....	225,236	Mar. 9	301	86	17	521
Pusey, Joshua, Philadelphia, Pa. Sash-fastening.....	228,274	June 1	141	40	17	1249
Pusey, Thomas, Stockton, Cal. Guide-roller for paper-machines.....	229,636	July 6	142	40	18	30
Putman, John. (See Berry and Putman.)						
Putman, John, assignor of one-half interest to F. E. Berry, Rushville, Ill. Check-rower... Putnam, Charles B., Marion, Iowa, assignor of one-half interest to T. Campbell, Chicago, Ill. Lift-pump.....	225,165	Mar. 2	207	58	17	492
Putnam, Do Witt C., Petaluma, Cal. Breaking-cart.....	233,161	Oct. 12	455	125	18	820
Putnam, Emmet P., La Chnreche, La. Bottle.....	232,207	Sept. 14	396	110	18	597
Putnam, George W., Glens Falls, assignor of two-thirds interest to R. C. Blackall and C. D. Hammond, Albany, N. Y. Car-coupling.....	234,807	Nov. 23	1237	333	18	1214
228,675	June 8	612	164	17	1331	

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr. E.	Vol.	Page.
Putnam, Henry W., Bennington, Vt. Bottle stopper and fastener.....	224,304	Feb. 10	384	108	17	286
Putnam, Henry W., Bennington, Vt. Fence-wire-barbing machine.....	224,351	Feb. 10	437	126	17	295
Putnam, Henry W., Bennington, Vt. Machine for making barbed fence-wire. (Reissne)..	9,485	Nov. 30	1552	{ 417 418 }	18	1274
Putnam, John P., Boston, Mass. Ventilating-gasalier.....	233,372	Oct. 19	731	200	18	874
Putnam, Joseph W., New Orleans, La. Pile-driver.....	229,461	June 29	1565	432	17	1493
Putnam, Joseph W., New Orleans, La. Pile-driver.....	229,462	June 29	1567	432	17	1493
Putnam, Theodore A. B., New York, N. Y. Electric railway-signal.....	229,009	June 22	1057	287	17	1413
Putnam, Theodore A. B., New York, N. Y. Electrical railway-signal.....	229,911	July 13	466	129	18	86
Putnam, Theodore A. B., New York, N. Y. Electric railway-signal.....	230,494	July 27	1199	{ 337 338 }	18	218
Putnam, Theodore A. B., New York, N. Y. Railway-car telegraph.....	231,498	Aug. 24	1036	290	18	435
Pylant, Tiry S., Ridge Spring, assignor of one-half interest to E. W. Horne, Edgefield County, S. C. Turbine water-wheel.....	229,751	July 6	278	78	18	49
Pyle, George C., assignor to D. H. Kent, Wilmington, Del. Horseshoe-machine.....	234,200	Nov. 9	462	{ 125 126 }	18	1071
Pyle, George C., assignor to D. H. Kent, Wilmington, Del. Machine for punching horse-shoes.....	234,201	Nov. 9	465	126	18	1072
Pyles, Nathaniel, Westport, Mo. Carpet and floor dust receiver.....	226,788	Apr. 20	751	210	17	893
Pyott, Louis T., assignor to A. Box, Philadelphia, Pa. Portable hoisting-pulley.....	235,645	Dec. 21	726	206	18	1417
Quackenbush, Jesse H., East Saginaw, Mich. Car-coupling.....	235,648	Dec. 21	729	208	18	1418
Quail, Charles H. (See Browne, John X., assignor.)						
Quaker Mill Company. (See Heston, William, assignor.)						
Quattlebaum, Bolivar J., assignor to himself and J. B. Du Bose, Ridge, S. C. Safety-whistle-tree.....	229,463	June 29	1568	433	17	1493
Quattlebaum, Bolivar J., Williston, S. C. Portable dental engine.....	236,080	Dec. 28	1262	348	18	1514
Queen City Dash Company. (See Davies, Henry, assignor.)						
Quevedo, Joseph B., Brooklyn, N. Y. Table-fastening.....	230,571	July 27	1279	360	18	232
Quick, William B., assignor of two-thirds interest to R. W. Fishborn and H. Hafner, Wyandotte, Kans. Sully-plow.....	228,676	June 8	613	165	17	1331
Quigley, John, Minneapolis, Minn. Animal-trap.....	225,763	Mar. 23	935	271	17	647
Quigley, William C., Galion, Ohio. Lawn-rake.....	226,419	Apr. 13	312	91	17	812
Quinby, Edward E. (See Matthiessen and Quimby.)						
Quimby, Edward E., Orange, assignor to F. O. Matthiessen & Wiechers Sugar Refining Company, Jersey City, N. J. Centrifugal liquoring apparatus.....	223,537	Jan. 13	404	108	17	84
Quimby, Edward E., Orange, assignor to F. O. Matthiessen & Wiechers Sugar Refining Company, Jersey City, N. J. Apparatus for liquoring hard sugar in centrifugal machines.....	223,538	Jan. 13	405	108	17	84
Quimby, Edward E., Orange, assignor to F. O. Matthiessen & Wiechers Sugar Refining Company, Jersey City, N. J. Centrifugal liquoring apparatus.....	223,539	Jan. 13	407	108	17	84
Quinby, Aaron K., Port Byron, N. Y. Gang-plank for boats.....	227,834	May 18	860	245	17	1138
Quinby, Aaron P., East Orange, N. J. Machine for flanging and curling hats.....	231,098	Aug. 10	578	164	18	348
Quinby, Ezra A. (See Burge and Quinby.)						
Quinlivan, Thomas, Coghill's Creek, Victoria. Thrashing-machine.....	223,536	Jan. 13	403	107	17	84
Quinn, Francis. (See Andrews, Thomas H., assignor.)						
Quinn, Patrick, South New Market, N. H. Upright steam-boiler.....	226,880	Apr. 27	881	245	17	925
Quintavalle, Robert, and T. Lindberg, Brooklyn, N. Y. Fire-escape.....	234,611	Nov. 16	983	261	18	1167
Quintenz, John, Chicago, Ill. Faucet.....	233,017	Oct. 5	260	72	18	781
Quinton, George, assignor of one-half interest to J. McCoubrey, London, Ontario, Canada. Soldering-iron heater.....	230,655	Aug. 3	72	20	18	258
Rabb, William S., Winnsborough, S. C. Farm and garden tool.....	233,019	Oct. 5	262	72	18	781
Rabbeth, Francis J., Providence, R. I., assignor to G. Draper, Milford, Mass., and S. A. Jenks, Lincoln, R. I. Spinning spindle and bearing.....	227,129	May 4	42	13	17	985
Rabbeth, Francis J., Lincoln, R. I. Surface-gage.....	228,391	June 1	260	73	17	1269
Raby, Richard, Jr., assignor of two-thirds interest to C. E. Lewis and J. Hay, York, Pa. } Animal-trap.....	223,757	Jan. 20	659	{ 177 178 }	17	134
Racine, Charles, Newark, N. J. Chuck for turning-lathes.....	227,297	May 4	233	69	17	1016
Racine Wagon and Carriage Company. (See Morse, Roswell C., assignor.)						
Racouillat, Ludovic, San Francisco, Cal. Packing box or case.....	234,725	Nov. 23	1130	304	18	1197
Radebaugh, Josiah W., Columbus, Ohio. Folding car-step.....	235,291	Dec. 7	273	76	18	1326
Rader & Co., G. W. (See Schmitt, Michael, assignor.)						
Radkey, Bernard, Austin, Tex. Carbureter.....	230,656	Aug. 3	73	20	18	258
Radley, Justin E. (See Marsh, Timothy D., assignor.)						
Rae, John, New York, N. Y. Grinding-mill.....	233,278	Oct. 12	588	162	18	843
Rae, Robert R., and J. Wilds, Acton, Ontario, Canada; said Wilds assignor to said Rae. Glove-fastener.....	230,495	July 27	1201	338	18	218
Raether, Emil P., New York, N. Y. Bottle-stopper.....	230,054	July 13	627	175	18	111
Raffinetti, Francis, Genoa, Italy, J. Austin and E. Gandolfo, New York, N. Y. Kiln for } burning brick, pottery, &c.....	224,352	Feb. 10	439	{ 126 127 }	17	295
Ragan, Thomas, Philadelphia, Pa. Hydrant.....	229,182	June 22	1234	339	17	1439
Raggio, Charles A., Chicago, Ill. Faucet attachment.....	228,219	June 1	69	20	17	1238
Raggio, Charles A., Chicago, Ill. Faucet attachment.....	234,429	Nov. 16	753	203	18	1129
Railsnyder, William H. F., Oil City, Pa. Bull-wheel for oil-wells.....	233,373	Oct. 19	732	201	18	874
Railey, James A., New Orleans, La. Ditching-machine.....	227,651	May 18	653	185	17	1106
Railsback, Lafayette D., Indianapolis, Ind. Pump.....	225,417	Mar. 9	515	148	17	555
Railway Combustion Company. (See Buchanan, Toucey, and Hoyt, assignors.)						
Railway Register Manufacturing Company. (See Benner and Pond, assignors.) (Reissue.)						
Railway Register Manufacturing Company. (See Benton, John B., assignor.)						
Railway Register Manufacturing Company. (See Benton, John B., assignor.) (Reissue.)						
Railway Register Manufacturing Company. (See Hornum, William H., assignor.) (Reissue.)						
Rainbow, William, Chancery Lane, England. Permanent way for railways.....	230,816	Aug. 3	250	72	18	288
Rainhart, Charles L., Catskill, N. Y. Blind adjuster and fastener.....	230,496	July 27	1202	338	18	218
Rainnie, Gavin, and G. J. A. Robinson, St. John, New Brunswick, Canada. Iron fence-post.....	233,018	Oct. 5	261	72	18	781
Raisor, Benjamin T., Corydon, Iowa, assignor of one-fourth interest to B. F. Veatch. Joist-support.....	233,696	Oct. 26	1126	314	18	949
Raimale, James L., Springdale, Pa. Animal-trap.....	229,913	July 13	471	130	18	87
Rambo, Thomas A. (See Russell and Burgess, assignors.)						
Ramsdell, Andrew J. (See Worthington, Thomas E., assignor.)						
Ramsdell, George, Oswego, N. Y. Apparatus for the manufacture of wood and oil gas.....	224,845	Feb. 24	1035	295	17	419
Ramsdell, George, Oswego, N. Y. Apparatus for the manufacture of wood and oil gas.....	230,657	Aug. 3	74	20, 21	18	258
Ramsden, John C., Redgate, Great Britain. Apparatus for hardening and tempering wire.....	231,848	Aug. 31	1460	410	18	508
Ramsay, Albert C. (See Devoe, Benjamin G., assignor.)						
Ramsey, Jonathan, Jr., West Meriden, Conn. Double-acting pump-syringe.....	233,279	Oct. 12	590	163	18	843

## Alphabetical list of patentees—Continued.

Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr's.	Vol.	Page.
Ramsey, William R. (See Hale and Ramsey.)						
Ramseyer, Abraham, Lima, Ohio. Music-leaf turner.	229,554	July 6	57	16	18	17
Rancevan, John, assignor of one-half to J. F. Hastings, Cincinnati, Ohio. Curtain-cord tightener.	235,169	Dec. 7	131	37	18	1303
Rand, Addison C., New York, N. Y. Valve-gear.	230,336	July 20	976	277	18	175
Rand Drill Company. (See Githens, Joseph C., assignor.)						
Rand, Jonathan Q. (See Brooks, William D., assignor.)						
Rand Manufacturing Company. (Knöchel, Conrad, assignor.)						
Randal, James B., et al. (See Baker, Jefferson B., assignor.)						
Randall, Benjamin W. (See Cleminshaw and Randall.)						
Randall, Charles A., New York, N. Y. Automatic tension-changer for electric circuits.	227,298	May 4	234	69	17	1017
Randall, Charles A., New York, N. Y. Perforating-stamp.	227,299	May 4	236	69	17	1017
Randall, Charles A., New York, N. Y. Telephone system.	227,300	May 4	237	69, 70	17	1017
Randall, Charles A., New York, N. Y. Electro-magnetic motor.	228,116	May 25	1201	342	17	1205
Randall, Charles A., New York, N. Y. Telephone system.	235,019	Nov. 30	1494	402 403	18	1264
Randall, Charles A., New York, N. Y. Telephone system and apparatus.	235,020	Nov. 30	1496	403	18	1264
Randall, Charles A., New York, N. Y. Telephone-receiver.	235,021	Nov. 30	1498	403	18	1265
Randall, Charles A., New York, N. Y. Telephonic telegraph.	236,081	Dec. 28	1264	349	18	1514
Randall, Francis W., Brockport, N. Y. Grain-harvester.	226,677	Apr. 20	637	177 178	17	874
Randall, Francis W., Tekonsha, Mich. Knot-tyer for grain-binders.	231,448	Aug. 24	984	277	18	427
Randall, Francis W., Tekonsha, Mich. Harvester-gaveler.	233,699	Oct. 26	1130	315	18	950
Randall, Isaac H., Boston, Mass. Car-roof.	234,063	Nov. 2	289	80	18	1034
Randall, Stephen D. (See Gardner and Randall.)						
Randall, Thomas G., et al. (See Hesse, Frederick C., assignor.)						
Randall, William, and R. F. Tuttle, Salem, Mass. Steam-jet pump.	228,275	June 1	142	40	17	1249
Randell, James H., Acworth, Ga. Combination-tool.	228,115	May 25	1201	342	17	1204
Randolph, David S. (See Card and Randolph.)						
Randolph, Eugene B., East Millstone, N. J. Brush-holder.	226,551	Apr. 13	474	133	17	836
Randolph, Ira F., Indianapolis, Ind., assignor to R. Bagaley, Pittsburg, Pa. Apparatus for lighting railway-cars. (Reissue.)	9,037	Jan. 6	271	71	17	49
Randolph, Theodore F., Cincinnati, Ohio. Compass-box.	234,331	Nov. 9	613	167	18	1097
Randolph, Theodore F., Cincinnati, Ohio. Telescope attachment to surveyors' compasses.	234,332	Nov. 9	614	167	18	1097
Randolph, Walter F., Bedford, Iowa. Harvester. (Reissue.)	9,276	July 6	326	90	18	56
Randolph, William L., Brooklyn, N. Y. Sewer-trap.	227,130	May 4	44	13	17	985
Range, Jacob M. (See Cash, David V., assignor.)						
Rank, Amos, Salem, Ohio. Mowing-machine.	235,378	Dec. 14	396	109	18	1354
Rank, Amos, Salem, Ohio. Reaping and mowing machine.	235,379	Dec. 14	397	109 110 111	18	1355
Rankin, David, San Francisco, Cal. Jack-screw.	232,846	Oct. 5	61	17	18	749
Rankin, Hugh P., Allegheny City, Pa. Meat-chopper. (Reissue.)	9,182	Apr. 27	1160	315	17	968
Rankin, Hugh P., Allegheny, Pa. Slaughtering apparatus.	233,698	Oct. 26	1128	315	18	950
Rankin, Thomas L., New York, N. Y. Water-tank for ice-making apparatus.	235,813	Dec. 21	919	256	18	1450
Rankin, Thomas L., New York, N. Y. Ice-making apparatus.	235,814	Dec. 21	920	257	18	1450
Ranney, John H., et al. (See Laughlin, David F., assignor.)						
Ransom, Albion, Londonville, and M. Cassidy, Albany, N. Y. Pattern for dovetailed snngs.	223,540	Jan. 13	408	109	17	84
Ransom, Edward. (See Ransom and Stone, assignors.)						
Ransom, Hiram M., Oakland, assignor to Hinckley, Spiers & Hayes, San Francisco, Cal. Ore-feeder.	225,023	Mar. 2	47	14	17	464
Ransom, Hiram W., assignor to Emerson, Fisher & Co., Cincinnati, Ohio. Hub-boring machine.	232,146	Sept. 14	316	89	18	564
Ransom, Loomis E., Bryan, Ohio, assignor to Kent Furniture Manufacturing Company. Grand Rapids, Mich. Bed-bottom.	224,846	Feb. 24	1036	295	17	419
Ransom, Martin, and W. C. Stone, assignors of one-third interest to E. Ransom, Chicago, Ill. Music-leaf turner.	229,839	July 13	395	109	18	75
Ransom, Newman A., Chicago, Ill. Fare register and recorder.	226,626	Apr. 20	580	162 163	17	865
Ransom, Samuel H., and G. W. Graves, assignors to Ransom Stove Works, Albany, N. Y. Stove-grate.	227,924	May 25	982	282	17	1169
Ransom Stove Works. (See Hamlin, Charles A., assignor.)						
Ransom Stove Works. (See Ransom and Graves, assignors.)						
Ransome, Frederick, Lower Norwood, England. Manufacture of cement and artificial stone.	223,815	Jan. 27	748	-----	17	158
Raphael, Lippman, Meadville, Pa. Trunk.	231,099	Aug. 10	580	165	18	349
Rapp, Christian F., Cincinnati, Ohio. School-slate.	232,416	Sept. 21	661	182	18	648
Rapp, Rosa B. (See Stewart, Archelans V., assignor.)						
Ratcliff, Frederick, assignor of one-third interest to F. S. Shirley, New Bedford, Mass. Calendar. (Reissue.)	9,390	Sept. 28	1113	304	18	731
Ratcliff, Frederick, New Bedford, Mass. Table stand and basket.	232,847	Oct. 5	62	18	18	749
Ratcliff, James E., Dawson, Ill. Window-screen frame.	229,010	June 22	1057	288	17	1413
Ratibun, Charles R., and F. W. Adams, Worcester, Mass. Sand-paper roll for boots and shoes.	226,104	Mar. 30	1346	379	17	726
Rauch, Matthew. (See Schater, Joseph, assignor.)						
Raughtigan, Michael, and E. Oldfield, Norwich, Conn. Picture-hanger.	227,055	Apr. 27	1093	302	17	958
Ranpp, Gustave A., Ecorse, Mich. Barrel-hoop machine.	225,075	Mar. 2	118	33	17	477
Rauscher, Frederick, West New Brighton, N. Y. Wash-basin or sink for kitchens, &c.	227,575	May 11	561	160	17	1081
Rawls, Joseph G., Wilson, N. C. Spiral cotton-chopper.	233,546	Oct. 19	935	257 258	18	908
Raworth, John S., Manchester, England, assignor to W. F. Draper, Hopedale, Mass. Bearing for spinning-spindles.	226,789	Apr. 20	753	210	17	893
Ray, James J., Huntsville, Mo. Apparatus for watering stock.	235,701	Dec. 21	795	224	18	1429
Ray, J. L. (See Clark, Erastus J., assignor.)						
Ray, Justinian A. (See Horner and Ray.)						
Ray, Richard. (See Ege, Alexander H., assignor.)						
Ray, Richard, Lake City, Fla. Ventilating-hat.	229,464	June 29	1569	433	17	1493
Ray, Richard, Lake City, Fla. Laborer's sun-shade.	229,465	June 29	1571	434	17	1494
Ray, Richard, Lake City, Fla. Ventilating-hat.	229,466	June 29	1573	434 435	17	1494
Ray, Richard, Lake City, Fla. Sun-shade.	229,912	July 13	468	130	18	87
Ray, Richard, Lake City, Fla. Umbrella.	230,658	Aug. 3	77	21, 22	18	259
Ray, Richard, Lake City, Fla., assignor of one-half interest to A. H. Ege, Mechanicsburg, Pa. Umbrella.	229,752	July 6	279	78	18	49



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Ray, Samuel. (See Shalters and Ray.) (Reissue.)						
Ray, William J., Ishpeming, Mich. Clutch.....	228,276	June 1	143	40	17	1249
Ray, William S., San Francisco, Cal. Coal-hod.....	233,697	Oct. 26	1127	314	18	949
Rayer & Lincoln Seaming Machine Company. (See Rayer and Lincoln, assignors.) (Reissue.)						
Rayer, William A., and W. S. Lincoln, Boston, Mass., assignors, by mesne assignments, to Rayer & Lincoln Seaming Machine Company. Sewing-machine. (Reissue).....	9,176	Apr. 27	1145	313	17	966
Raymond, Albert. (See Raymond, George and A.)						
Raymond, August. (See Hartmann and Raymond.)						
Raymond, Charles W., Dayton, Ohio. Tempering-wheel for clay and mortar.....	227,835	May 18	861	245	17	1133
Raymond, C. Herman, New York, N. Y. Securing boiler-tubes.....	233,374	Oct. 19	733	201	18	874
Raymond, Cyrus, 2d, Danbury, Conn. Telephonic signaling apparatus.....	231,932	Sept. 7	61	15	18	534
Raymond, F. F., 2d. (See Jones, Josiah N., assignor.)						
Raymond, F. F., 2d, trustee. (See Earle, Oscar T., assignor.)						
Raymond, F. F., 2d, trustee. (See Earle, Oscar T., assignor.) (Reissue.)						
Raymond, F. F., 2d, trustee. (See Henderson, Henry A., assignor.)						
Raymond, Francois, Woodhaven, N. Y. Folding bed.....	223,336	Jan. 6	201	53	17	37
Raymond, Freeborn F., 2d, Newton, Mass. Peg and peg-wood.....	232,617	Sept. 23	894	247	18	694
Raymond, George and A., Waupun, Wis. Grinding-mill.....	226,196	Apr. 6	58	14, 15	17	756
Raymond, George H., Brockport, N. Y. Elevator-belt for harvesters, &c.....	229,275	June 29	1339	363	17	1462
Raymond, Lewis H., New York, N. Y., and J. Roberts, Dunellen, N. J. Life-raft.....	227,054	Apr. 27	1092	302	17	958
Raymond, Lewis H., New York, N. Y. Boat-plug.....	233,547	Oct. 19	938	258	18	903
Raynolds & Co., C. T. (See Hamilton, Emery M., assignor.)						
Raynor, John B. (See Smith, Seymour, and Raynor.)						
Read, Amos, Jamestown, N. Y. Truss-pad.....	234,333	Nov. 9	615	163	18	1097
Read, Charles A., Bridgeport, Conn. Water meter and motor.....	227,576	May 11	562	160	17	1081
Read, George H. (See Hitchcock and Read.)						
Read, John W., West Salem, Ohio. Bee-hive.....	235,896	Dec. 23	1042	288	18	1478
Read, Luther, Henderson, N. Y. Millstone-balancing device. (Reissue).....	9,091	Feb. 24	1175	337	17	442
Read, Walter G., San Francisco, Cal. Geographical game-card.....	229,914	July 13	472	130	18	87
Reagin, James. (See Hazelwood, Reagin, and Coleman.)						
Real, John, assignor of one-half to S. Woodward and N. A. Gaston, New Prospect, Miss. Wagon-brake.....	236,032	Dec. 23	1265	349	18	1515
Ream, David W., Detroit, Mich. Stencil.....	234,492	Nov. 16	827	221	18	1141
Reaser, Warren T., Madison, Wis. Buckle.....	228,678	June 8	615	166	17	1332
Reaves, Mary A., Snelling, Cal. Compound for catarrh.....	234,808	Nov. 23	1237		18	1214
Reber, George K. (See Irwin and Reber.) (Reissue.)						
Reber, George K., Pittsburg, assignor to Solderless Standing Seam Conductor Company, (limited), Allegheny, Pa. Water-conductor.....	225,237	Mar. 9	302	87	17	521
Reckendorfer, Joseph. (See Benson, Henry C., assignor.)						
Reckendorfer, Joseph. (See Benson and Hoffman, assignors.)						
Reckendorfer, Joseph. (See Boman, Claes W., assignor.)						
Reckendorfer, Joseph. (See Hoffman, Joseph, assignor.)						
Record & Boyer. (See Pearson, Thomas T., assignor.)						
Reddick, William A., Niles, Mich. Shovel or scoop.....	226,351	Apr. 6	229	66	17	787
Reddick, William A., Niles, Mich. Shovel.....	230,337	July 20	977	277	18	175
Redfield, James H., Salem, Ind. Middlings-purifier.....	234,688	Nov. 23	1091	293	18	1191
Redman, Selden D., Newfane, N. Y. Animal-tether.....	224,353	Feb. 10	441	127	17	295
Redmond, Charles C., and A. W. White, San José, Cal. Faucet.....	224,354	Feb. 10	441	127	17	295
Redmond, Charles C., and A. W. White, San José, Cal. Beer-faucet.....	226,245	Apr. 6	112	31	17	766
Redmond, Charles C., and A. W. White, San José, Cal. Beer-faucet.....	229,637	July 6	143	40	18	30
Redmond, Owen, Rochester, N. Y. Machine for lasting boots and shoes.....	227,132	May 4	46	14	17	986
Redmond, William, Greenville, S. C. Cut-off for steam-engines.....	225,866	Mar. 23	1050	300	17	666
Redsecker, Hoffman G. and J. T., Athens, Ill. Belt-fastener.....	224,951	Feb. 24	1145	327	17	437
Redsecker, John T. (See Redsecker, Hoffman G. and J. T.)						
Redway, Albert J., Avondale, assignor to Redway & Burton, Cincinnati, Ohio. Stove.....	223,561	Jan. 27	800	{ 214 215 }	{ 17 }	167
Redway & Burton. (See Peet, John T., assignor.)						
Redway & Burton. (See Redway, Albert J., assignor.)						
Redway, Catharino C., et al. (See Chatterton, George H., assignor.)						
Reece, Henry, Lincoln, Nebr. Force-pump.....	225,946	Mar. 30	1164	330	17	697
Reed, Albert, assignor of one-half interest to C. M. Stone, Binghamton, N. Y. Car-replacer.....	232,300	Sept. 14	506	141	18	617
Reed, Allen V. (See Taft, Frank S., assignor.)						
Reed & Barton. (See Beattie, William C., assignor.)						
Reed & Barton. (See Hewitson, John, assignor.)						
Reed & Barton. (See Hewitson and Tolman, assignors.)						
Reed & Barton. (See Leach, Thomas, assignor.)						
Reed & Co., D. C. & H. C. (See Garver, David L., assignor.) (Reissue.)						
Reed, David. (See Heck and Reed.)						
Reed, David S., Searcy, Ark. Refrigerator.....	231,612	Aug. 24	1167	326	18	455
Reed, Frederick L. (See Dorsey and Reed.)						
Reed, George P., Melrose, Mass. Watch-key.....	231,681	Aug. 31	1255	353	18	476
Reed, George P., Melrose, Mass. Watch-key.....	231,729	Aug. 31	1315	370	18	485
Reed, Henry O., New York, N. Y. Toilet-pad.....	227,131	May 4	45	13	17	986
Reed, James H. (See Miller, David K., assignor.)						
Reed, John H., et al. (See Ehrlich, Edward, assignor.)						
Reed, John H., Cowles, Nebr. Penmanship-instructing chart.....	230,817	Aug. 3	251	72	18	288
Reed, John H., assignor of one-half interest to I. N. Morganroth, Shamokin, Pa. Vehicle-brake.....	232,546	Sept. 21	809	224	18	673
Reed, John J., assignor of two-thirds interest to W. A. McCntchen, and L. J. Snyder, Lyons, Iowa. Windmill.....	223,677	June 8	614	165	17	1332
Reed, J. Van D. (See Stowe, Benjamin L., assignor.)						
Reed, Nicholas. (See Goldsmith and Reed.)						
Reed, Samuel, assignor of one-half interest to C. C. Isham, Cincinnati, Ohio. Reversible slate.....	223,559	June 8	483	129	17	1312
Reed, Stephen, assignor of one-half interest to R. Gilbert, Austintown, Ohio. Fence-post.....	226,790	Apr. 20	755	210	17	893
Reed, Thomas B., and G. Rogers, Vernon, Ind. Horse hay-rake.....	231,358	Aug. 17	879	247	18	403
Reed, William S. (See Maynard and Parker, assignors.)						
Reed, William S., Leominster, Mass. Toy.....	231,972	Sept. 7	126	31	18	544
Reed, W. S. (See Scripture, Eliphalet S., assignor.) (Reissue.)						
Reeder, James A., Corinth, Miss. Brick-machine.....	225,418	Mar. 9	516	149	17	555
Reeder, William S., St. Louis, Mo. Corn-sheller.....	224,609	Feb. 17	744	211	17	356
Reeder, William S., assignor to Kingsland, Ferguson & Co., St. Louis, Mo. Cane-mill.....	226,352	Apr. 6	230	67	17	788

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Reedy, Henry J., Cincinnati, Ohio. Hoisting-machine.....	235,649	Dec. 21	730	208	18	1418
Rees, Jacob, Cleveland, Ohio. Combined foot-rest, blacking-holder, and boot-jack.....	229,053	June 22	1099	299	17	1419
Rees, John, Battle Creek, Mich. Wire fence.....	235,650	Dec. 21	731	208	18	1418
Reese, Abram, Pittsburg, Pa. Manufacture of hoes.....	232,301	Sept. 14	507	141	18	617
Reese, Charles, Baltimore, Md. Railway-rail joint.....	224,476	Feb. 10	577	166	17	317
Reese, Henry, assignor of one-fourth interest to T. L. Reese, Baltimore, Md. Railway tie and fastening. (Reissue).....	9,292	July 13	688	192	18	121
Reese, Henry O., Baltimore, Md. Slop-bucket.....	227,577	May 11	563	161	17	1081
Reese, Jacob, Pittsburg, assignor to Bessemer Steel Company, (limited,) Philadelphia, Pa. Manufacture of iron and steel.....	223,758	Jan. 20	660	.....	17	135
Reese, John H., et al. (See Cook, George W., assignor.)						
Reese, Thomas L. (See Reese, Henry, assignor.) (Reissue.)						
Reese, Wirt M., and M. R. Zell, assignors to Crystal Burial Case Company, Orrville, Ohio. Burial-case.....	228,679	June 8	616	166	17	1332
Reeve, Augustus, et al. (See Lamb, Restore B., assignor.)						
Reeve, Sanford D., Aurora, Ill. Car-replacer.....	230,716	Aug. 3	140	41	18	269
Reeve, Winfield S., Riceville, Iowa. Blacksmith's shears.....	226,105	Mar. 30	1348	380	17	726
Reeves, Horace E., assignor to G. B. Sherman, Fort Dodge, Iowa. Sulky-plow.....	230,497	July 27	1202	338	18	218
Reeves, James E. (See Miles, Gideon, assignor.)						
Reeves, Jane A. (See Stark, James M., assignor.)						
Regan, Bernard, deceased, P. H. Gunckel, administrator, and assignor, by mesne assignments, to W. H. Nanman and J. W. Stoddard & Co., Dayton, Ohio. Grain-drill. (Reissue).....	9,339	Aug. 10	624	176	18	355
Regan, John W. (See Berry, Charles E., assignor.)						
Regan, Thomas J. F., assignor to F. S. Benson, Brooklyn, N. Y. Making illuminating-gas..	228,392	June 1	261	73	17	1269
Regeater, Robert A., Baltimore, Md. Shaft-supporter.....	233,548	Oct. 19	938	258	18	908
Rehkopf, Albert J. and J. A., Sigourney, Iowa. King-bolt for vehicles.....	226,197	Apr. 6	60	15	17	756
Rehkopf, John A. (See Rehkopf, Albert J. and J. A.)						
Reiche, Julius, Brooklyn, N. Y. Rocking attachment to chairs.....	226,420	Apr. 13	313	91	17	812
Reichenbach, Oscar, Newark, N. J. Loop-box for bag-frames.....	230,572	July 27	1279	360	18	232
Reichert, John. (See Miller and Reichert.) (Reissue.)						
Reichert, Michael, Jackson, Mich. Wagon end-gate.....	233,280	Oct. 12	591	163	18	843
Reid, Charles H., Danbury, Conn. Lathe-chuck.....	226,246	Apr. 6	112	31	17	766
Reid, Hiram A., Des Moines, Iowa, assignor, by mesne assignment, to J. W. and J. C. White and H. M. Lewis, trustees, Philadelphia, Pa. Sheep-shearing machine. (Reissue.)	9,455	Nov. 9	681	184 185	18	1108
Reid, Lloyd T., Rockport, Ky. Churn-dasher staff.....	234,065	Nov. 2	292	80	18	1034
Reid, William A., Racine, Wis., assignor to W. S. Buffham, T. Dickinson, G. Gorton, and T. H. Davis. Apparatus for producing chilled castings.....	231,499	Aug. 24	1038	291	18	435
Reiff, William H., Philadelphia, Pa. Percussion burglar-alarm.....	225,534	Mar. 16	657	192	17	589
Reiff, William H., Philadelphia, Pa. Portable burglar-alarm.....	225,641	Mar. 16	777	228	17	611
Reigart, Jacob, Steelton, Pa. Window-screen.....	227,446	May 11	416	121	17	1056
Reiher, Frank A., Chicago, Ill. Transom-lifter.....	226,353	Apr. 6	230	67	17	788
Reilay, Richard B., Wilkesbarre, Pa., assignor to D. F. Maltby, Waterbury, Conn. Fruit-jar.....	229,638	July 6	144	41	18	30
Reilly, Owen, New York, N. Y. Grate-bar.....	225,419	Mar. 9	517	149	17	555
Reilly, Patrick, South Chester, Pa. Machine for making tubes.....	225,642	Mar. 16	778	228	17	612
Reilly, Henry, Rixford, Pa. Saw-filing machine.....	232,062	Sept. 7	220	60, 61	18	560
Reilly, Henry, Rixford, Pa. Saw-filing machine.....	232,063	Sept. 7	223	61, 62	18	561
Reimann, Charles F. A., Pine Bluff, Ark. Dividers.....	227,578	May 11	564	161	17	1081
Reimers, William A., and J. Bierbauer, Mankato, Minn. Traveling brush for middlings-purifiers.....	223,950	Jan. 27	908	242	17	184
Reinecke, Herman, assignor of one-half to G. Merritt, Brooklyn, N. Y. Traveling clock.....	234,612	Nov. 16	984	262	18	1167
Reiner, Isaiah H., Line Lexington, Pa. Harrow.....	227,836	May 18	861	245	17	1138
Reiner, Isaiah H. and S., Line Lexington, Pa. Combined harrow and cultivator tooth.....	235,651	Dec. 21	733	208	18	1418
Reiner, Samuel. (See Reiner, Isaiah H. and S.)						
Reinhardt, Jacob F. and T., New York, N. Y. Pantaloon-holder.....	223,681	Jan. 20	581	156	17	121
Reinhardt, Theophilus. (See Reinhardt, Jacob F. and T.)						
Reinhart, James M. (See Reinhardt, Joseph W., assignor.)						
Reinhart, Joseph W., assignor to J. M. Reinhart, Pittsburg, Pa. Locked switch.....	224,953	Feb. 24	1147	328	17	437
Reinhart, Joseph W., assignor to J. M. Reinhart, Pittsburg, Pa. Locked switch.....	225,643	Mar. 16	778	228	17	612
Reinhart, Joseph W., assignor to J. M. Reinhart, Pittsburg, Pa. Switch-lock.....	226,107	Mar. 30	1350	380	17	726
Reinhart, Joseph W., assignor to J. M. Reinhart, Pittsburg, Pa. Switch-lock.....	227,301	May 4	240	70	17	1017
Reinhart, Joseph W., assignor to J. M. Reinhart, Pittsburg, Pa. Padlock.....	230,055	July 13	628	175	18	111
Reinhold, Franz, assignor to himself, A. Kaps, and J. Petz, Detroit, Mich. Thermal motor.....	231,449	Aug. 24	986	277	18	427
Reinhold, Heinrich, assignor to himself and C. H. Dracke, Hamburg, Germany. Manufacture of artificial slate.....	236,083	Dec. 28	1266	.....	18	1515
Reinhold, Hermann, and A. Schreiber, Davenport, Iowa. Clip-bolt for whiffletrees.....	233,281	Oct. 12	592	163	18	844
Reinhold, Hermann, and A. Schreiber, Davenport, Iowa. Fleam.....	236,084	Dec. 28	1266	349	18	1515
Reinoehl, Augustus F., Manheim township, (Lancaster P. O.,) Lancaster county, Pa. Fan for forge-fires.....	226,247	Apr. 6	113	31	17	766
Reisert, Antony, New York, N. Y. Beer-cooler.....	235,292	Dec. 7	274	77	18	1326
Reiss, Henry K., Greenville, Pa. Composition for flavoring cigars.....	231,682	Aug. 31	1255	.....	18	476
Reitz, Johannes H., administrator. (See Schmidt, Edmund.)						
Reitzel, Ephraim H. (See Hand and Reitzel.)						
Rejall & Becker. (See Mitchell, Charles M., assignor.)						
Remhof, Charles, Brooklyn, N. Y. Tray.....	229,467	June 29	1575	435	17	1494
Remington, George H., and J. P. Manton, Providence, R. I., assignors to American Ship Windlass Company. Locking-gear for windlasses. (Reissue).....	9,233	June 1	323	88	17	1279
Remington, Milton F., Norwalk, Ohio. Corn-sheller.....	232,904	Oct. 5	131	34	18	760
Remington Sewing Machine Company. (See Tyler, Sidney M., assignor.) (Reissue.)						
Remington & Sons, E. (See Jenne, William K., assignor.)						
Remlinger, John L., Providence, R. I. Watch-chain swivel.....	224,952	Feb. 24	1146	328	17	437
Rendle, William E., Westminster, England. Glazed structure.....	224,608	Feb. 17	743	210	17	356
Rendtorff, Hermann. (See Hoernes, Nikolaus A., assignor.)						
Rendtorff, Hermann. (See Stoessiger, Augustus C., assignor.) (Reissue.)						
Rendtorff, Hermann, Chicago, Ill. Stove-board.....	233,165	Oct. 12	456	125	18	820
Rendtorff, Hermann, Chicago, Ill. Stove-board.....	233,947	Nov. 2	138	37	18	1010
Renn, George M., Sunbury, Pa. Dental plugger.....	232,758	Sept. 23	1055	289	18	721
Renne, Mary E., et al. (See Hoffman, Charles D., assignor.)						
Renneburg, Edward. (See Adams and Renneburg.)						
Renner, Christ, Jr., Indianapolis, Ind. Thill-coupling.....	229,555	July 6	59	16	18	17
Reno, Charles J., Greenbush, N. Y. Permutation-lock.....	225,490	Mar. 16	605	176	17	581
Reno, Peter A., Detroit, Mich. Drill-chuck.....	234,066	Nov. 2	292	81	18	1034

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Rensch, Hugo, <i>et al.</i> (See Bauder, Adam, assignor.)						
Renshaw, David, Cohasset, Mass. Sectional steam-generator	230,818	Aug. 3	252	72	18	288
Renshaw, David, Cohasset, assignor to Bisbee, Endicott & Co., Chelsea, Mass. Sectional steam-generator	231,194	Aug. 17	704	198	18	374
Renwick, Edward S., Milburn, N. J. Incubator	224,224	Feb. 3	286	83	17	251
Renz, Carl J., Hudson, N. Y. Apparatus for preserving grapes and other fruit	223,759	Jan. 20	662	178	17	135
Renz, Carl J., Hudson, N. Y. Cigarette-mold	228,117	May 25	1203	343	17	1205
Renz, Carl J., Hudson, N. Y. Preserving fruit	230,573	July 27	1280	361	18	232
Renz, Mitchell. (See Grilley, Thomas M., assignor.)						
Requa, Elias B., Jersey City, N. J. Lantern	224,225	Feb. 3	287	83	17	251
Resley, Horace, Cumberland, Md. Curtain-cord tightener	225,166	Mar. 2	208	59	17	492
Retif, Jules, Fils. (See Maignen and Retif.)						
Retort Gas Stove Company. (See Turner, William A., assignor.)						
Reury, Joseph H., assignor to himself and B. L. Wood, Honesdale, Pa. Blind-slat operator	229,183	June 22	1235	339	17	1439
Reuss, John L., Castroville, Tex. Wheel-plow	231,193	Aug. 17	702	198	18	374
Rewrick, Assaria, and J. D. Gilmour, San Francisco, Cal. Scraper	231,850	Aug. 31	1463	410	18	509
Rex, Abraham. (See Hunter, George W., assignor.)						
Rex, Alfred C. (See Kyser and Rex.)						
Reynolds, Alexander, Oswego, N. Y. Detachable rocker for chairs	232,147	Sept. 14	318	90	18	584
Reynolds, Andrew J., Chicago, Ill., assignor of one-fourth interest to J. N. Sears, London, England. Malt and hop drier	229,639	July 6	144	41	18	30
Reynolds, Benjamin H., Canterbury, Conn. Milk and cream cooler	225,764	Mar. 23	936	271	17	647
Reynolds, Christopher C., assignor to himself and W. G. Young, Kelseyville, Cal. Key-board attachment for musical instruments	223,387	Jan. 6	202	53	17	37
Reynolds, Christopher C., assignor to himself and W. G. Young, Kelseyville, Cal. Key-board attachment for musical instruments	231,849	Aug. 31	1461	410	18	508
Reynolds, De Elbert A., Fowler, Mich. Grain measure and register	234,891	Nov. 30	1341	361	18	1238
Reynolds, Edwin, Milwaukee, Wis. Feed-water heater for steam-boilers	223,816	Jan. 27	749	200	17	159
Reynolds, Edwin, Milwaukee, Wis. Air-pump	227,652	May 18	653	186	17	1106
Reynolds, Edwin, Milwaukee, Wis. Feed-water heater	227,925	May 25	984	282	17	1170
Reynolds, Edwin, Milwaukee, Wis. Feed-water heater	228,478	June 8	373	102	17	1296
Reynolds, George H., <i>et al.</i> (See Rider, Alexander K., assignor.) (Reissue.)						
Reynolds, Hiram, assignor, by mesne assignment, to Neil & Auringer and G. F. Auringer, Marshalltown, Iowa. Machine for barbing fence-wires	230,439	July 27	1132	318	18	207
Reynolds, Ira, Dayton, Ohio, assignor, by mesne assignments, to L. D. Reynolds. Blank-book. (Reissue.)	9,503	Dec. 21	967	269	18	1459
Reynolds, Jerome B., Kearney, assignor of one-half interest to W. P. Harris, Newark, N. J. Ore and coal conveyer	230,056	July 13	630	175	18	111
Reynolds, John A., Danville, Pa. Elevated scale-beam for head-blocks	232,302	Sept. 14	508	142	18	617
Reynolds, John H., <i>et al.</i> (See Shaw, Charles H., assignor.)						
Reynolds, John H., Troy, N. Y. Necktie	229,334	June 29	1420	389	17	1472
Reynolds, John H., and C. H. Shaw, Troy, N. Y. Fancet-bung	235,633	Dec. 21	734	209	18	1419
Reynolds, John R., assignor of one-half interest to H. Hayden, Jr., Jackson, Mich. Mill-stone-driver	228,838	June 15	849	232	17	1375
Reynolds, Lucius D. (See Reynolds, Ira, assignor.) (Reissue.)						
Reynolds, Montgomery A., Stanton, Mich. Truck	226,106	Mar. 30	1349	380	17	726
Reynolds, Norman. (See Johnson and Reynolds.)						
Reynolds, Samuel F., Auburn, N. Y. Metal-rolling machine	236,085	Dec. 28	1267	349	18	1515
Reynolds, Stephen A. (See Chipman and Reynolds.)						
Reynolds, William A. (See Keefer and Reynolds.)						
Reynolds, William L., <i>et al.</i> (See Glover, William H., assignor.)						
Reynolds, William L., and D. Thomas, St. Louis, Mo., assignors of one-third interest to W. B. Dean. Puddling-furnace. (Reissue.)	9,139	Apr. 6	258	76	17	793
Reynolds, William W., assignor to Howe Scale Company, Rutland, Vt. Portable weighing-scales	226,000	Mar. 30	1228	347	17	707
Reynolds, William W., assignor to Howe Scale Company, Rutland, Vt. Poise for scale-beams	227,579	May 11	564	161	17	1082
Rhamy, John H., Conroy, Ohio. Wagon-seat	225,420	Mar. 9	518	149	17	556
Rhamy, John H., Antioch, Ind. Wheel-cultivator	230,057	July 13	631	176	18	112
Rhamy, John H., Antioch, Ind. Wheel-cultivator. (Reissue.)	9,511	Dec. 21	976	271	18	1460
Rheubottom, James R., Weedsport, N. Y. Clasp	228,118	May 25	1204	343	17	1205
Rheude, Andrew. (See Schneider, Alois, assignor.)						
Rheutan, Abram A., assignor to W. H. Hill, Worcester, Mass. Envelope-machine	225,947	Mar. 30	1164	330	17	698
Rheydt, Ferdinand, Chicago, Ill. Machine for making slate-pencil sharpeners	235,815	Dec. 21	921	257	18	1451
Rhind, Frank, Brooklyn, N. Y., assignor of one-fourth interest to F. A. Lehmann, Washington, D. C. Chandelier	224,226	Feb. 3	289	83	17	251
Rhind, Frank, Brooklyn, and J. Farthing, New York, N. Y. Hydrogen-lamp	232,848	Oct. 5	63	18	18	749
Rhind, Frank, Brooklyn, and J. Farthing, New York, N. Y. Chandelier	233,433	Oct. 19	806	222	18	886
Rhind, James W. C., assignor of one-tenth interest to D. Wooley, San Francisco, Cal. Automatic switch for wire-rope railways	228,932	June 15	949	258	17	1389
Rhoades, Edward, assignor of one-half interest to H. H. Palmer, Rockford, Ill. Churn. (Reissue.)	9,225	June 1	305	86	17	1275
Rhoades, Samuel M., Jeffersonville, Pa. Thill-coupling	225,867	Mar. 23	1051	300	17	666
Rhodes, George T. (See Saggus, David A., assignor.)						
Rhodes, Marcus M., Taunton, Mass. Apparatus for gaging and assorting disks of varying thickness	231,359	Aug. 17	879	248	18	403
Rhule, Jacob, Jr., assignor to himself and L. W. Ebert, Pittsburg, Pa. Feed-water heater	228,930	June 15	947	257	17	1389
Ribourt, Léon, assignor to Compagnie Industrielle Des Procédés Raoul Pictet, Paris, France. Apparatus for preserving alimentary substances by means of cold	225,702	Dec. 21	796	224	18	1429
Rice, Alfred L. (See Rice, George M., 2d, and A. L.)						
Rice, Charles B. (See Mills and Rice.)						
Rice, Charles J. (See Parks and Streeter, assignors.)						
Rice, Delos E., Detroit, Mich. Hot-water reservoir	223,951	Jan. 27	909	242	17	184
Rice, Delos E., Detroit, Mich. Feed-water heater and pump combined. (Reissue.)	9,476	Nov. 23	1279	343	18	1221
Rice, Eliakim, Nanuet, N. Y., assignor to D. Goff & Sons, Pawtucket, R. I. Tape-holder. (Reissue.)	9,106	Mar. 2	255	72	17	501
Rice, Eliakim, Nanuet, N. Y. Cover for pails or tubs	226,111	Mar. 30	1355	381	17	727
Rice, Everett A., New York, N. Y. Vegetable-cutter	233,700	Oct. 26	1131	315	18	950
Rice, Everett A., New York, N. Y. Clothes-line fastening	235,964	Dec. 28	1133	313	18	1493
Rice, George M., 2d, and A. L., Worcester, Mass.; said A. L. Rice assignor to said George M. Rice, 2d. Separating vegetable fibers from animal fibers	235,170	Dec. 7	132	.....	18	1304
Rice, Gerret S., Chicago, Ill. Music-chart for key-board instruments	223,245	Jan. 6	44	11	17	10
Rice, Gerret S., Chicago, Ill. Music-chart	228,839	June 15	850	232	17	1375

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Rice & Hayward. (See Hayward, William S., assignor.)						
Rice, Henry C., Louisiana, Mo. Coffee-pot.	229,640	July 6	146	41	18	30
Rice, Henry C., Easthampton, Mass., assignor of one-half interest to M. H. Jamieson, Middletown, Conn. Pencil-sharpener.	230,338	July 20	978	277	18	175
Rice, James N., Pittston, Pa. Vehicle-spring	223,542	Jan. 13	409	109	17	85
Rice, Jesse T., assignor to himself and F. J. Hubbard, Grand Rapids, Mich. Car-coupling.	230,058	July 13	632	176	18	112
Rice, Joel F., Louisiana, Mo. Railway-rail joint.	231,851	Aug. 31	1463	411	18	509
Rice, Sewell, Worcester, Mass. Fruit-gatherer.	224,610	Feb. 17	745	211	17	356
Rice, Silas A., Magnolia, Ohio. Hanger for sliding and swinging gates.	226,112	Mar. 30	1356	381	17	727
Rice, William, Jr., et al. (See Morgan, Lewis B., assignor.)						
Rich, Abraham, and C. Rundlett, Farmingdale, Me. Ice-planer.	230,659	Aug. 3	79	22	18	259
Rich, Elisha B. (See Meigs, Carlos D., assignor.)						
Rich, George H., Lynn, Mass. Machine for waxing paper.	233,282	Oct. 12	593	163 164 161 162	18	844
Richardi, Robert, Louisiana, Mo. Machine for making wooden trays.	227,580	May 11	565	162	17	1082
Richards, De Forest, Camden, Ala., and W. E. Richards, Flushing, N. Y. Steam-washer.	226,552	Apr. 13	474	134	17	836
Richards, Edward S., Chicago, Ill. Grain weighing and transferring apparatus.	226,108	Mar. 30	1352	380	17	726
Richards, E. Ira. (See Morse, Lewis, assignor.)						
Richards, George, Roxbury, Mass. Steam-muffler.	227,302	May 4	242	70	17	1017
Richards, Henry E., Oswego, Ill. Stay-roller for sliding doors.	229,185	June 22	1237	340	17	1439
Richards, Isaac H., Indianapolis, Ind. Separator and purifier.	233,375	Oct. 19	734	201	18	874
Richards, Isaac P., Providence, R. I. Metal-punch.	229,840	July 13	398	109	18	75
Richards, John, and H. E. Brandenburg, Columbia City, Ind. Hay-loader.	229,469	June 29	1578	436	17	1495
Richards, John W., Newark, N. J., assignor to R. Hoe & Co., New York, N. Y. Revolving type-bed.	228,680	June 8	617	166	17	1332
Richards, Joseph D. (See Huey, William, assignor.)						
Richards, Joseph W., Lynn, Mass. Tree-protector.	228,393	June 1	262	73	17	1269
Richards, Thomas, Jr., Atco, N. J. Wooden bucket, tub, &c.	223,541	Jan. 13	409	109	17	84
Richards, Thomas C., Winsted, Conn. Curtain-cord tightener.	233,802	Oct. 26	1242	345	18	970
Richards, Thomas S., Bunker Hill, Ill. Corn-planter.	231,614	Aug. 24	1168	327	18	456
Richards, William E. (See Richards, De Forest and W. E.)						
Richards, William H., Pittsburg, Pa. Ratchet-drill.	231,361	Aug. 17	883	249	18	403
Richards, William H., Birmingham, England. Manufacture of screw-hooks.	231,613	Aug. 24	1168	326	18	455
Richardson, Albert C., South Frankfort, Mich. Hame-fastener.	227,384	May 11	353	103	17	1046
Richardson, Alden B., Dover, Del. Device for soldering cans.	232,065	Sept. 7	225	62	18	561
Richardson, Alvin M., New York, N. Y. Manufacture of artificial marble or stone.	233,948	Nov. 2	140		18	1010
Richardson, Charles, Philadelphia, Pa. Temporary binder.	228,931	June 15	948	258	17	1389
Richardson, Charles C. (See Richardson, George M. and C. C.) (Reissue.)						
Richardson, Charles W., E. and J. E. Dawson, Red Bluff, Cal. Car brake and starter.	226,881	Apr. 27	883	246	17	925
Richardson, David M., Detroit, Mich. Grain-scouring device.	233,021	Oct. 5	268	73	18	782
Richardson, Dwight S., Brooklyn, N. Y. Awning.	234,373	Nov. 9	660	180	18	1105
Richardson, Edwin C., Poultney, Vt. Churn-cover.	224,305	Feb. 10	386	109	17	287
Richardson, Frank H., Brooklyn, N. Y. Blank-book.	226,930	Apr. 27	942	261	17	934
Richardson, Frederick, Providence, R. I., assignor to W. Mills & Son, New York, N. Y. Line-guide for fishing-rods.	234,812	Nov. 23	1242	334	18	1215
Richardson, Frederick, Providence, R. I. Boot and shoe heel.	236,086	Dec. 28	1268	350	18	1515
Richardson, Frederick, Providence, R. I. Boot and shoe heel.	236,087	Dec. 28	1269	350	18	1515
Richardson, George L., Brunswick, Me. Combined hay-fork and balance.	223,296	Jan. 6	112	28	17	20
Richardson, George M. and C. C., Dana, Mass., assignors, by mesne assignments, to W. H. Field, Port Chester, and C. M. Sharp, Ithaca, N. Y. Horse hay-rake. (Reissue.)	9,258	June 15	1004	272	17	1397
Richardson, George W., Milton, Vt. Machine for converting horizontal into rotary motion.	228,968	June 15	985	268	17	1394
Richardson, Gilman P., Bath, Me. Band-tie.	231,100	Aug. 10	581	165	18	349
Richardson, Henry J., Brooklyn, N. Y. Instrument for computing time.	235,703	Dec. 21	797	224	18	1429
Richardson, Isaac C., Nashua, N. H. Apparatus for raising water.	227,993	May 25	1070	305	17	1183
Richardson, Jacob H., and J. C. Calhoun, Oakley, La. Tool-handle.	225,869	Mar. 23	1052	301	17	666
Richardson, James D., Franklin, Ind. Refrigerator.	225,868	Mar. 23	1052	301	17	666
Richardson, Jeremiah J., Brooklyn, N. Y. Heating-furnace.	228,119	May 25	1205	343	17	1205
Richardson, John, New York, N. Y. Machine for bundling kindling-wood. (Reissue.)	9,490	Dec. 7	321	89	18	1335
Richardson, John D., Jr., Newport, R. I. Electric call-bell.	224,477	Feb. 10	578	166	17	317
Richardson, John P. (See Parker, William D., assignor.) (Reissue.)						
Richardson, John T., Harrisburg, Pa., assignor to Pennsylvania Steel Company. Railway-switch.	229,734	July 6	281	79	18	50
Richardson, Julius C., Pittsburg, Pa., assignor to Withington & Cooley Manufacturing Company, Jackson, Mich. Machine for manufacturing agricultural forks.	223,246	Jan. 6	45	11	17	10
Richardson, Julius C., assignor of one-half interest to H. A. Lanman, Columbus, Ohio. Roll for forming carriage-clips.	226,109	Mar. 30	1353	381	17	726
Richardson, Julius C., Columbus, Ohio. Child's carriage.	235,171	Dec. 7	133	38	18	1304
Richardson, Leonard, Brooklyn, N. Y. Sheet-metal can.	227,303	May 4	243	70	17	1018
Richardson, Levi J., Montville, Mass. Device for leveling billiard and other tables, &c.	233,552	Oct. 19	944	259	18	909
Richardson, M. C. (See Johnson, Moses, assignor.)						
Richardson, Milo A., Bridgeport, Conn. Sharpening dental burrs.	226,110	Mar. 30	1353	381	17	727
Richardson, Nathan H., Fitchburg, Mass. Rattan-machine.	231,360	Aug. 17	881	248	18	403
Richardson, Samuel M., Woburn, Mass. Breech-loading ordnance.	233,115	Oct. 12	398	109	18	810
Richardson, Theodore M., Stockton, Me., assignor of one-half interest to L. Staples, Chelsea, Mass. Thill-coupling.	229,753	July 6	280	79	18	50
Richardson, Theodore M., assignor of one-half to L. M. Partridge, Stockton, Me. Thill-coupling.	234,067	Nov. 2	294	81	18	1035
Richardson, William B., Wolf's Mill, Tex. Grain-register.	232,759	Sept. 28	1058	289	18	722
Richman, Alfred B. (See Murphree, Joseph, assignor.)						
Richmann, Henry, assignor of five-eighths interest to U. K. Arnold, San Francisco, Cal. Air-compressor.	229,468	June 29	1576	436	17	1494
Richmann, Henry, assignor of five-eighths interest to U. K. Arnold, San Francisco, Cal. Support and clamp for rock-drills.	231,238	Aug. 17	756	212	18	382
Richmann, Henry, assignor of five-eighths interest to U. K. Arnold, San Francisco, Cal. Rock-drilling apparatus.	233,020	Oct. 5	263	73	18	781
Richmond, Adelbert G. (See Arkell and Richmond.)						
Richmond, Cassius M., New York, N. Y. Artificial tooth-crown and process of setting the same.	224,355	Feb. 10	442	127	17	296
Richmond, Francis R., Springfield, Mass. Call-signal for telephone-lines.	227,056	Apr. 27	1094	302 303	17	958
Richmond, Gilbert M., Chicago, Ill., assignor to L. A. Watson, Ashtabula, Ohio. Feather duster.	227,837	May 18	862	246	17	1139



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Richmond, William. (See Ryan, Thomas, assignor.)						
Richmond, William B., Springfield, Mass. Vehicle-spring.....	226,882	Apr. 27	885	246	17	925
Richmond, William H., Mount Pleasant, Mich. Curtain-fixture.....	229,184	June 22	1236	339	17	1439
Richter, Daniel. (See Weiler, Aron, assignor.)						
Richter, Friedrich A. (See Lilienthal, Otto and G., assignors.)						
Rickard, James B., Union City, Mich. Sawing-machine.....	226,791	Apr. 20	755	211	17	893
Ricker, John W., Chelsea, Mass. Hitching-bar for animals.....	224,356	Feb. 10	444	128	17	296
Ricker, John W., Chelsea, Mass. Corn-sheller.....	226,627	Apr. 20	585	163 164	17	866
Ricketts, Francis M., Spiceland, Ind. Device for swaging saw-teeth.....	231,615	Aug. 24	1170	327	18	456
Ricketts, John T. (See Chappell and Ricketts.)						
Rickey, Joseph, Kankakee, Ill. Seed-planter.....	231,683	Aug. 31	1256	353	18	476
Ridal, Amos, Pawtucket, R. I. Die for making half-round file-blanks.....	225,076	Mar. 2	119	34	17	477
Riddlesberger, John, Waynesborough, Pa. Wagon-brake.....	228,934	June 15	951	259	17	1389
Rideout, Alexander C., Hillsdale, Mich. Warming and ventilating.....	229,242	July 13	399	110	18	75
Rideout, Henry A., Calais, Me., assignor of two-thirds interest to O. B. and M. P. Rideout. Churn.....	223,452	Jan. 13	298	79	17	66
Rideout, Martha P., et al. (See Rideout, Henry A., assignor.)						
Rideout, Oliver B., et al. (See Rideout, Henry A., assignor.)						
Rider, Alexander K., Walden, assignor, by mesne assignments, to C. H. Delamater, G. H. Reynolds, and T. J. Rider, New York, N. Y. Air-engine. (Reissue.).....	9,353	Aug. 24	1202	336	18	462
Rider, Alexander K., Walden, assignor, by mesne assignments, to C. H. Delamater and T. J. Rider, New York, N. Y. Hot-air engine. (Reissue.).....	9,359	Aug. 31	1505	422	18	515
Rider, Alexander K., Walden, assignor, by mesne assignments, to C. H. Delamater and T. J. Rider, New York, N. Y. Pump-valve. (Reissue.).....	9,368	Sept. 28	1110	304	18	730
Rider, Alexander K., Walden, assignor to T. J. Rider, New York, N. Y. Gas-engine.....	233,804	Oct. 26	1245	346 347	18	970
Rider, Charles S., Canton, Ohio. Apparatus for degerminating and reducing grain.....	233,553	Oct. 19	944	260	18	909
Rider, Emory, New York, N. Y. Deadening noise on railways.....	229,641	July 6	147	41	18	30
Rider, John F. C., South New Market, N. H. Thill-coupling.....	233,805	Oct. 26	1249	347	18	971
Rider, T. J. (See Rider, Alexander K., assignor.)						
Rider, Thomas J., et al. (See Rider, Alexander K., assignor.) (Reissue.)						
Rider, Timothy B. (See McWilliam, Charles, assignor.)						
Rider, Timothy B., Fitch Bay, Quebec, Canada. Indicator for steam-boilers.....	234,146	Nov. 9	392	107	18	1059
Ridgway, Frank E. (See Ridgway, Lemuel A., assignor.)						
Ridgway, Henry, et al. (See Atherton, Robert, assignor.) (Reissue.)						
Ridgway, Joseph T., Trenton, N. J. Automatic attachment to lathes for cutting rubber and other rings.....	235,022	Nov. 30	1499	403	18	1265
Ridgway, Lemuel A., Mansfield, Pa., assignor to F. E. Ridgway, Marion Centre, Kans. Sample-exhibitor.....	232,064	Sept. 7	224	62	18	561
Ridgway, William H., Coatesville, Pa. Turbine water-wheel.....	230,339	July 20	979	278	18	175
Ridley, Henry A., assignor to himself and W. R. Jones, Jacksonport, Ark. Spark-ar- rester.....	233,022	Oct. 5	269	74	18	782
Riebeck, Adolph, Leipsic, Saxony, Germany. Charging gas-retorts with hydrocarbon oils.....	226,001	Mar. 30	1229		17	708
Rieber, Francis, Calicoon Depot, N. Y. Stock-car.....	228,933	June 15	950	258	17	1389
Rieckert, Herman A. J., New York, N. Y. Hinge for folding bedsteads.....	234,334	Nov. 9	616	168	18	1098
Rieckert, Herman A. J., New York, N. Y. Spring for folding bedsteads.....	235,293	Dec. 7	275	77	18	1326
Riedel, Julius, and A. Pfüger, assignors to C. Brämer, Berlin, Germany. Match-box.....	233,803	Oct. 26	1243	346	18	970
Rieder, Bartholomäus, Emsworth, Pa. Velocipede.....	234,064	Nov. 2	290	80	18	1034
Rieger, Charles, Allegheny, Pa. Fire-kindling stick.....	236,088	Dec. 28	1270	350	18	1515
Rieger, Louis, Jr., New York, N. Y. Ear-ring.....	227,581	May 11	567	162	17	1082
Riese, Casper, Berlin, Prussia, Germany. Gaiter clasp or fastener.....	230,498	July 27	1204	339	18	218
Riesel, Henry, Galveston, Tex. Bale-tie.....	231,616	Aug. 24	1171	327	18	456
Riesel, Henry, Galveston, Tex. Bale-ejector for presses.....	235,294	Dec. 7	276	77	18	1326
Riesel, Henry, Galveston, Tex. Bale-ejector for presses.....	235,295	Dec. 7	277	78	18	1327
Rigby, James, Montreal, Quebec, Canada. Car-wheel.....	232,849	Oct. 5	65	19	18	749
Rigby, James, Montreal, Quebec, Canada. Car-wheel.....	233,701	Oct. 26	1132	316	18	950
Riggs, Daniel L. (See Riggs, Theodore L. and D. L.)						
Riggs, Herbert A., Chelsea, Mich. Attachment for watch-barrels.....	225,421	Mar. 9	519	149	17	556
Riggs, Herbert A., Grass Lake, Mich. End-board for wagons.....	234,614	Nov. 16	986	263	18	1168
Riggs, Theodore L., Portland, and D. L. Riggs, Salem, Oreg. Fruit-drier.....	234,202	Nov. 9	467	126 127	18	1072
Rightmyer, Sherwood, Buffalo, N. Y. Bit-brace.....	235,380	Dec. 14	399	111	18	1355
Rightmyer, William T., Brooklyn, N. Y. Pen.....	223,388	Jan. 6	203	53	17	37
Rigollet, Léon, Paris, France. Billiard-cue cutter and clamp.....	233,554	Oct. 19	947	260	18	909
Riley, Charles W., Knoxville, Tenn. Screw-cutting lathe.....	233,702	Oct. 26	1133	316	18	950
Riley, Elizabeth J., Indianapolis, Ind. Dust-pan.....	225,302	Mar. 9	387	113	17	534
Riley, Eugene, San Francisco, Cal. Pipe-coupling.....	233,434	Oct. 19	807	222	18	886
Riley, John, Troy, assignor to Salamander Felting Company, New York, N. Y. Non-con- ducting jacket for steam-pipes.....	230,059	July 13	633	177	18	112
Riley, John A., et al. (See Carlisle, Henry, Jr., assignor.) (Reissue.)						
Riley, John A., and C. S. Freer, New York, N. Y. Bracelet.....	229,276	June 29	1340	368	17	1462
Riley, Martha E., Harrisburg, Oreg. Dress-maker's chart.....	223,543	Jan. 13	411	110	17	85
Riley, Middleton. (See Dixon, Ephraim, assignor.)						
Riley, William W., Brooklyn, N. Y., assignor of one-half interest to F. A. Bartholomew, Bloomfield, N. J. Switch for elevated railways.....	227,996	May 25	1076	306	17	1183
Riley, William W., Brooklyn, N. Y., assignor of one-half interest to F. A. Bartholomew, Bloomfield, N. J. Operating car-doors.....	229,755	July 6	282	79	18	50
Riley, William W., Brooklyn, N. Y., assignor of one-half interest to F. A. Bartholomew, Bloomfield, N. J. Car-truck for elevated railways.....	232,208	Sept. 14	397	110	18	597
Riley, Wilson, Keighley, assignor to J. Barnes and R. W. Kenyon, Accrington, England. Vise.....	227,582	May 11	568	162	17	1082
Rinehart, William D., and J. Albertson, Richmond, Ind. Belt-tightener.....	229,841	July 13	398	109	18	75
Ring, Jacob, Cincinnati, Ohio, assignor to W. H. Brown, Boston, Mass. Hat-brim.....	232,066	Sept. 7	226	63	18	561
Ring, John P., and E. L. Mooney, Mount Morris, Ill. Combined harrow and roller.....	225,024	Mar. 2	48	14	17	464
Ringrose, Jesse W., assignor of one-half to J. S. Huston, Mechanicsburg, Pa. Fly-net for horses.....	233,806	Oct. 26	1250	347	18	971
Rinkleff, Frank. (See Kromer and Rinkleff.)						
Ripley, Daniel C., Pittsburg, Pa. Glass lamp.....	230,340	July 20	981	278	18	176
Ripley, Robert A. (See Ballantine, Alexander T., assignor.)						
Ripp, Gustav, and J. Mueller, Jersey City, N. J. Automatic apparatus for stopping en- gines.....	226,553	Apr. 13	475	134	17	837
Rippetoe, Anasa, Terrell, Tex. Medical compound.....	235,704	Dec. 21	798		18	1429

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Rippen, Adolph, assignor to W. M. Griscom, and M. and W. Harbster, Reading, Pa. Ap- ple-parer.....	233,023	Oct. 5	269	74	18	732
Rippen, Adolph, assignor to W. M. Griscom and M. and W. Harbster, Reading, Pa. To- bacco-cutter.....	234,068	Nov. 2	295	81	18	1035
Rippingille, Edward A., Holborn and Birmingham, England. Lamp.....	231,730	Aug. 31	1316	370	18	485
Rischmuller, George, Oakland, Cal. Windmill.....	226,421	Apr. 13	315	91	17	812
Rishel, Elias. (See Rishel, George W. and E.)						
Rishel, George W., North Mountain, and E. Rishel, Turbotville, Pa. Tire-tightener.....	227,995	May 25	1075	306	17	1133
Risher, Daniel. (See Miller, John F., assignor.)						
Risler, George, Sennheim, Gormany. Cotton-picker.....	234,613	Nov. 16	985	262	18	1167
Risley, Goodrich E., Waterville, N. Y. Machine for removing bugs from potato-vines.....	225,870	Mar. 23	1054	301	17	666
Risley, Oliver H. K. (See Bentley, John D., assignor.)						
Ritchie, David A., Chelsea, Mass. Manufacture of sheet-metal tubing.....	224,228	Feb. 3	290	84	17	251
Ritchie, Edward S., Brookline, Mass. Street-lighting apparatus.....	232,148	Sept. 14	319	90	18	584
Ritchie, Matthew L., New York, N. Y. Tube-drawing device.....	231,852	Aug. 31	1464	411	18	509
Riter, John L., Brownsville, assignor of one-half to S. Scofield and J. L. Gilchrist, Conners- ville, Ind. Feed for seed-drills.....	234,203	Nov. 9	469	127	18	1073
Riter, John L., Brownsville, assignor of one-half to S. Scofield and J. L. Gilchrist, Conners- ville, Ind. Force-feed for seeding-machines.....	234,335	Nov. 9	617	168	18	1098
Ritter, Philip A. (See Lane, Turner H., assignor.)						
Ritter, Reuben, assignor of one-fourth interest to W. B. Burke, Philadelphia, Pa. Com- bined oiler and oil-bottle.....	224,041	Feb. 3	77	23	17	216
Ritty, Sebastian, assignor to J. Dodds, Dayton, Ohio. Horse hay-rake.....	223,247	Jan. 6	47	11	17	10
Ritz, Joseph H. (See Loveren and Ritz.)						
Rivet, Louis, assignor of two-thirds interest to N. H. Bolton, Minneapolis, Minn., and S. W. Skinner, Ilion, N. Y. Steam-boiler.....	225,722	Mar. 23	884	258	17	639
Rivett, Edward, Boston, Mass. Hair-spring stud for watches.....	224,227	Feb. 3	290	84	17	251
Rix, Edward A., San Francisco, Cal. Air-compressor.....	235,296	Dec. 7	278	78	18	1327
Rix, Edward A., San Francisco, Cal. Air-compressor.....	235,816	Dec. 21	922	257	18	1451
Rix, George K., Chicago, Ill. Smoking-pipe.....	224,107	Feb. 3	158	45	17	229
Robb, Byron H., Newport, Ky. Galvanic brush.....	225,723	Mar. 23	885	258	17	639
Robb, James, Jr., Glasgow, Scotland. Operating slide-valves.....	235,023	Nov. 30	1501	404	18	1265
Robb, James A., San José, Cal. Edger.....	227,926	May 25	985	282 283	17	1170
Robbins & Appleton. (See Calame, William, assignor.)						
Robbins, Charles D. (See Crocker, Frederick, Sr., assignor.)						
Robbins, D. B. (See Hunt, Franklin B., assignor.)						
Robbins, Edwin A., assignor of one-half interest to M. Willis, Boston, Mass. Carriage- wrench.....	227,304	May 4	244	71	17	1018
Robbins, Francis H., et al. (See Terman, James W., assignor.)						
Robbins, Henry R., assignor to himself and J. E. Stansbury, Baltimore, Md. Making change and delivering tickets in street-cars, stores, &c.....	225,872	Mar. 23	1056	302	17	667
Robbins, Henry R., assignor to himself, J. E. and J. B. Stansbury, Baltimore, Md. Press and former for making the heads of sheet-metal cans.....	228,120	May 25	1207	344	17	1205
Robbins, Henry R., Baltimore, Md., assignor, by mesne assignments, to Bissell Manufactory Company, New York, N. Y. Trap for wash-boilers. (Reissue).....	9,513	Dec. 21	978	271	18	1461
Robbins, Isaiah B., Stockton, Cal. Kitchen-cabinet.....	227,179	May 4	104	30	17	995
Robbins, Louis S., assignor to American Vulcanizing Wood and Lumber Company, New York, N. Y. Preserving wood. (Reissue).....	9,512	Dec. 21	977	271	18	1461
Robbins, Thomas J., assignor of one-half interest to W. Castle, Middletown, Cal. Medical compound.....	224,954	Feb. 24	1148		17	437
Robbins, William W., Milford, N. H. Automatic sirup-fountain.....	230,717	Aug. 3	141	42	18	269
Roberge, David and David, Jr., New York, N. Y. Toe-weight for horses.....	224,955	Feb. 24	1148	328	17	437
Roberson, Adam K., Red Cloud, Ind. Ax.....	228,681	June 8	618	166	17	1332
Roberson, George W. and I. B., Salem, N. Y. Animal-trap.....	225,948	Mar. 30	1168	332	17	698
Roberson, Ira B. (See Roberson, George W. and I. B.)						
Roberts, Alfred R., assignor of one-half interest to E. H. Johnston, Philadelphia, Pa. Cross- ing-frog.....	234,809	Nov. 23	1238	333	18	1214
Roberts, Alfred R., and W. Lewis, Philadelphia, Pa. Bearing for turn-tables.....	235,297	Dec. 7	278	78	18	1327
Roberts, Benjamin F., Leon, Iowa. Skeleton-kettle.....	224,956	Feb. 24	1149	328	17	438
Roberts, Charles, et al. (See Smith, Robert P., assignor.)						
Roberts, Charles C., Cleveland, Ohio. Device for drying lumber.....	230,819	Aug. 3	253	72	18	288
Roberts, George S., Baltimore, Md. Smoke-bell support for gas-fixtures.....	230,060	July 13	635	177	18	112
Roberts, George W., Waterbury, Conn. Trace-fastener.....	230,150	July 20	758	211	18	141
Roberts, Henry P., assignor of one-half to F. W. Adams, Jamestown, N. Y. Leather-skiv- ing machine.....	235,172	Dec. 7	134	38	18	1304
Roberts, Horace E. (See Patterson, Joseph P., assignor.)						
Roberts, Horace E., Baltimore, Md. Bill-file.....	225,025	Mar. 2	49	14	17	464
Roberts, James, Brooklyn, N. Y. Safety attachment for watches.....	235,454	Dec. 14	496	142	18	1372
Roberts, James A., Sydney, New South Wales, Australia. Carriage-lamp.....	223,389	Jan. 6	204	54	17	37
Roberts, James H. (See Green and Roberts.)						
Roberts, James M., Augusta, Ga. Cigar-box.....	236,089	Dec. 28	1271	350	18	1516
Roberts, John. (See Raymond and Roberts.)						
Roberts, John R., Youngstown, Ohio. Towel-rack.....	223,952	Jan. 27	910	242	17	184
Roberts, John W. (See Morningstar and Roberts.)						
Roberts, Levi H., Cadillac, Mich. Fastening for tool-handles.....	227,057	Apr. 27	1097	303	17	958
Roberts, Robert K. (See Ainsworth and Roberts.)						
Roberts, Stewart D. (See Fuller, Franklin P., assignor.)						
Roberts, Theodor H., assignor to Michigan Stove Company, Detroit, Mich. Stove-leg fast- ener.....	226,198	Apr. 6	61	15	17	757
Roberts, Theodore H. (See Herrick, Wipfler, and Roberts.)						
Robertson, Alexander F., et al. (See Ambler, Arthur A., assignor.)						
Robertson, George W. (See Taylor, William, assignor.)						
Robertson, James K. (See Fay, George H., assignor.)						
Robertson, James O., Fall River, Mass. Filter-paper supporter.....	229,186	June 22	1238	340	17	1439
Robertson, John, Montreal, Quebec, Canada. Faucet.....	230,963	Aug. 10	429	123	18	324
Robertson, John H., New York, N. Y. Mat.....	232,760	Sept. 28	1060	289	18	722
Robertson, Judah T., New York, N. Y. Triturating-mill.....	230,660	Aug. 3	80	22	18	259
Robertson, Richard S. (See Durning, Joseph S., assignor.)						
Robertson, Thomas J. W. (See Borie, Henry J., assignor.)						
Robertson, William H., Hartford, Conn. Starching-machine.....	227,583	May 11	568	163	17	1082
Robins, John N., et al. (See Dickey, William D., assignor.)						
Robinson, Albert S., Albany, and W. D. Sunderlin, Green Island, N. Y. Blind-slat fasten- ing.....	223,653	Jan. 20	546	147	17	116

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Robinson, Albert S., assignor to A. M. Robinson and J. Gledhill, Albany, N. Y. Heel-stiffener and counter-support.	226,792	Apr. 20	756	211	17	893
Robinson, Andrew J., Boston, Mass. Axle-box for vehicles.	223,609	Jan. 13	489	131 132	17	97
Robinson, Andrew J., assignor to T. Prince, Boston, Mass. Cover for kegs, &c.	225,167	Mar. 2	209	59	17	492
Robinson, Anna M., <i>et al.</i> (See Robinson, Albert S., assignor.)						
Robinson, Charles H. (See Oltz, Frederick E., assignor.)						
Robinson, Daniel T., assignor to himself and G. W. Wilkinson, Boston, Mass. Thill-coupling.	229,470	June 29	1580	437	17	1495
Robinson, Edgar, Columbus, Ohio. Coffee-pot.	226,354	Apr. 6	231	68	17	788
Robinson, Edgar, assignor of one-half interest to R. H. Gardner, Columbus, Ohio. Grain-car door.	230,574	July 27	1282	361	18	232
Robinson, Edgar, Columbus, Ohio. Car-axle box.	232,149	Sept. 14	320	91	18	584
Robinson, Enoch, Raynham, assignor to Old Colony Iron Company, Taunton, Mass. Manufacture of steel scoops.	234,892	Nov. 30	1342	361	18	1238
Robinson, Enos P. (See Ketchledge, James T., assignor.)						
Robinson, Francis W., Richmond, Ind. Steam-engine governor. (Reissue.)	9,306	July 20	1041	294	18	186
Robinson, Francis W., Richmond, Ind. Thrashing-machine.	235,837	Dec. 28	1043	288	18	1478
Robinson, George F., Toronto, Ontario, Canada. Summer-furnace.	229,756	July 6	282	79	18	50
Robinson, George H., <i>et al.</i> (See Ericsson, John, assignor.)						
Robinson, George H., <i>et al.</i> (See Ericsson, John, assignor.) (Reissue.)						
Robinson, George H. (See Granger, Almon M., assignor.)						
Robinson, George J. A. (See Rainnie and Robinson.)						
Robinson, Goldsborough, Louisville, Ky. Improving the color and quality of leaf-tobacco.	225,422	Mar. 9	520	.....	17	556
Robinson, Goldsborough, assignor to Louisville Leaf Tobacco Company, Louisville, Ky. Process and apparatus for treating tobacco.	230,061	July 13	635	177	18	112
Robinson, James B., Kittanning, Pa. Bow.	224,043	Feb. 3	79	24	17	217
Robinson, James B., assignor of one-half interest to J. E. McNally and E. A. Fowler, Washington, D. C. Revolving toy lantern.	230,575	July 27	1283	361	18	232
Robinson, James P., trustee. (See Walker, Alfred, assignor.)						
Robinson, James R., Cambridge, Mass. Uniting metal plates by riveting.	230,964	Aug. 10	430	124	18	324
Robinson, James R., Newcastle-on-Tyne, England. Ticket-stamp.	233,807	Oct. 26	1251	347 348	18	971
Robinson, James S., Jamestown, N. Y. Adjustable seat, desk, &c.	228,840	June 15	852	232	17	1375
Robinson, John A., and R. H. Dimock, New Haven, Conn. Deflagrating compound.	228,935	June 15	952	.....	17	1390
Robinson, John K., Washington, D. C., and D. A. Strong, Chicago, Ill. Packing for oil and other wells.	232,209	Sept. 14	398	111	18	598
Robinson, John T., Hyde Park, Mass. Paper-cutter.	225,871	Mar. 23	1055	301	17	667
Robinson, Joseph F. (See Barnes, Wesley W., assignor.)						
Robinson, Stillman W., Columbus, Ohio. Telephone.	227,653	May 18	655	186	17	1107
Robinson, William, Washington, D. C. Paging and numbering machine.	230,198	July 20	809	229 230	18	149
Robinson, William, Bodega, (Smith's Ranch P. O.,) Cal. Gate.	231,617	Aug. 24	1171	327	18	456
Robinson, William J., Howlett Hill, N. Y. Berry-basket holder.	232,068	Sept. 7	227	63	18	561
Robinson, William W., Ripon, Wis. Gate-hinge.	227,838	May 18	863	246	17	1139
Robson & Son, John. (See Jordan, August C., assignor.)						
Rochelle, William W., Star Landing, Miss. Saw-swage.	230,341	July 20	982	278	18	176
Rochester Adjustable Lamp Company. (See Cartwright, Robert, assignor.)						
Rock, Eugene G., Northfield, Vt. Street-sweeper.	223,297	Jan. 6	112	28	17	21
Rockerfeller, Edmond. (See Nordaby, William H., assignor.)						
Rockingham Shoe Company. (See Holman, Albert P., assignor.)						
Rockwell, Fred C. (See Laraway and Rockwell.)						
Rodebaugh, George W., Jackson, Mich. Saw-guide.	230,499	July 27	1204	339	18	219
Rodenhausen, Leonhard, Philadelphia, Pa. Dumping-wagon.	223,953	Jan. 27	910	243	17	184
Rodenhausen, Leonhard, Philadelphia, Pa. Vehicle-spring.	236,090	Dec. 28	1272	351	18	1516
Roderick, Joseph L., Petaluma, Cal. Potato-digger.	231,101	Aug. 10	582	165	18	349
Rodger, John, Union, S. C. Tether.	236,091	Dec. 28	1273	351	18	1516
Rodgers, Alexander, Muskegon, Mich. Head-block.	228,937	June 15	954	259	17	1390
Rodgers, Samuel, assignor to New York Sanitary Company, New York, N. Y. Embalming.	227,654	May 18	656	.....	17	1107
Rodman, John B., Fort Brown, Tex. Primer for cannons.	232,210	Sept. 14	400	111	18	598
Roehr, Frank, and E. A. Jeyte, Chicago, Ill. Guard-gate for swing-bridges.	225,535	Mar. 16	658	192	17	590
Roelofs, Anthony, Philadelphia, Pa. Lamp-supporting device.	232,761	Sept. 28	1060	290	18	722
Roemer, Joseph, Portland, Oreg. Spring truck-frame.	228,781	June 15	778	212	17	1365
Roff, William H. (See Tripler and Roff.)						
Rogan, Bernard, Pittsburg, Pa. Puddling and boiling furnace.	223,610	Jan. 13	490	132	17	97
Rogers, Albert G., assignor of one-half interest to R. B. Rogers, Lathrop, Mo. Animal-trap.	223,760	Jan. 20	664	179	17	135
Rogers & Brother. (See White, William W., assignor.)						
Rogers & Brother, C. (See Donovan, George L., assignor.)						
Rogers & Brothers, C. (See Mosman, Charles F., assignor.)						
Rogers, Charles. (See Sipe and Rogers.)						
Rogers, Charles, Pittsburg, Pa. Spring-motor.	230,576	July 27	1283	361	18	233
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Machine for hammering draw-plates.	225,238	Mar. 9	304	87	17	521
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Manufacture of draw-plates for drawing wire.	226,883	Apr. 27	885	246	17	926
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Device for coiling wire.	229,915	July 13	473	131	18	87
Rogers, Charles D., assignor to American Screw Company, Providence, R. I. Device for pointing wire.	230,718	Aug. 3	141	42	18	269
Rogers, Columbus K., and W. S. McIntire, Salem, Mass. Grate-bar.	227,180	May 4	105	31	17	935
Rogers, David J., assignor to Carothers, Rogers & Co., Bardstown, Ky. Ice-cream freezer.	227,058	Apr. 27	1098	303	17	959
Rogers, Edwin. (See Crane and Rogers.)						
Rogers, Edwin, Brookline, and M. G. Crane, Newton, Mass. Fire-alarm-telegraph repeater.	223,248	Jan. 6	48	12	17	11
Rogers, George. (See Reed and Rogers.)						
Rogers, George, <i>et al.</i> (See Spindler and Fairchild, assignors.)						
Rogers, George, <i>et al.</i> (See Yoch, Benhard, assignor.) (Reissue.)						
Rogers, George W., Rome City, Ind. Clothes-drier.	227,385	May 11	353	103	17	1046
Rogers, James P., Kaufman, Tex. Churn-motor.	225,644	Mar. 16	779	228	17	612
Rogers, James S. (See Skinner, Merrill R., assignor.)						
Rogers, John H. (See Morewood and Rogers.)						
Rogers, John S., Gloucester, Mass. Extracting gelatine or ichthyocolla from salted fish-skins. (Reissue.)	9,226	June 1	306	.....	17	1276
Rogers, John S., Gloucester, Mass. Extracting gelatine or ichthyocolla from salted fish-skins. (Reissue.)	9,296	July 13	693	.....	18	122

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Rogers, Joseph E., Ralston, Pa. Pump.....	234,069	Nov. 2	295	81, 82	18	1035
Rogers, Josiah W., Salem, Mass., assignor to F. Winslow, trustee. Boot and shoe sole buffer.....	227,839	May 18	864	246	17	1139
Rogers, Julius W., West Meriden, Conn. Electroplating-frame.....	224,478	Feb. 10	578	167	17	318
Rogers, Lebbeus H., New York, N. Y. Manufacture of perforated and scalloped paper.....	228,939	June 15	956	260	17	1390
Rogers, Lebbeus H., New York, N. Y. Stylus for writing on manifold paper.....	235,898	Dec. 28	1044	288	18	1478
Rogers, Nelson, Elgin, Ill. Jar.....	228,938	June 15	955	{ 259 260 }	{ 17	1390
Rogers, Renben B. (See Rogers, Albert G., assignor.)						
Rogers, Richard J., Chelsea, Mass. Water-meter.....	229,187	June 22	1238	340	17	1440
Rogers, Robert W., Pittsburg, Pa. Device for manufacturing bridge-links.....	235,455	Dec. 14	496	143	18	1372
Rogers, Theodore B., Wethersfield, Conn. Seed-sower.....	232,762	Sept. 28	1061	290	18	722
Rogers, William H., Amherst, Nova Scotia, Canada. Fishway.....	228,936	June 15	953	259	17	1390
Rogers, Winfield S., assignor of one-half interest to S. Francis, Richmond, Ind. Signal-lantern.....	229,054	June 22	1100	299	17	1419
Rogers, Winfield S., assignor of one-half interest to S. Francis, Columbus, Ohio. Lantern.....	233,024	Oct. 5	271	75	18	783
Rohe, Florian, New York, N. Y. Fabric for packing meat, &c.....	229,471	June 29	1581		17	1495
Rohlf, Charles, Brooklyn, N. Y. Device for stretching sheep-skin on musical instruments.....	235,381	Dec. 14	400	111	18	1355
Rohlf, Charles, Brooklyn, N. Y. Tail-piece for musical instruments.....	235,382	Dec. 14	400	111	18	1355
Rohn, Samuel W., Defiance, Ohio. Excavator.....	225,873	Mar. 23	1057	302	17	667
Rolfe, Abial, Fisherville, N. H. Window-blind.....	229,226	June 22	1279	352	17	1445
Rollins, Jason P. (See Plunkett and Rollins.)						
Rollins, Orlando B., and J. W. Hudson, Wellington, Ill. Check-rower for corn-planters.....	224,796	Feb. 24	984	279	17	410
Roloson, Charles H., Baltimore, Md. Door-fastening.....	230,062	July 13	637	177	18	113
Rolph, Benjamin M., Taylor, Ill. Windmill.....	234,204	Nov. 9	470	{ 127 128 }	{ 18	1073
Romer & Co. (See Ahrend, Hermann, assignor.)						
Rominger, George S., assignor to American Buttonhole Overseaming and Sewing Machine Company, Philadelphia, Pa. Retaining and releasing device for fly-wheels.....	226,113	Mar. 30	1357	382	17	727
Römisch, Gustav, Vienna, Austria. Tobacco-pipe.....	234,810	Nov. 23	1239	333	18	1214
Ronan, Anson G., Quebec, Canada. Steam fire-engine pump.....	227,655	May 18	657	{ 186 187 }	{ 17	1107
Rood, Charles P., La Fargeville, N. Y. Extension-ladder.....	229,472	June 29	1582	437	17	1495
Rood, Netta G., Chicago, Ill., assignor of one-half interest to L. M. Sanford, Des Moines, Iowa. Wardrobe-bed.....	225,765	Mar. 23	937	271	17	647
Roorbach, William L., Philadelphia, Pa. Receiver, regulator, and cooler for beverages under pressure.....	234,726	Nov. 23	1131	305	18	1197
Roosevelt, Hilborne L. (See Leclanché, Georges L., assignor.)						
Root, Benjamin M., Monnt Joy, Pa. Cultivator.....	223,954	Jan. 27	911	243	17	184
Root, Charles F., et al. (See Frisbie, Dennis, assignor.)						
Root, Corydon A., Andover, Ohio. Foot cooler and moistener for horses.....	226,628	Apr. 20	587	164	17	866
Root, George W. (See Smyth, David M., assignor.)						
Root, George W., New York, N. Y., assignor to himself, M. R. Scofield, and A. R. Stark, Stamford, Conn. Strainer for tea and coffee pots.....	225,766	Mar. 23	938	271	17	647
Root, Miles C., Toledo, Ohio. Heater for cars.....	235,899	Dec. 28	1045	289	18	1478
Root, William A. (See Palmer and Root.)						
Roper, Charles F., Hartford, Conn. Mechanism for extracting oil from metal chips.....	225,949	Mar. 30	1169	332	17	698
Rorke, Hugh B., Fulton, N. Y. Truck.....	224,836	Nov. 23	1268	341	18	1320
Rosa, Edward B. (See Brown and Rosa.)						
Rose, Alexander J., Boston, Mass. Railway-signal.....	228,683	June 8	620	167	17	1332
Rose, Allen W., assignor to C. A. Cheever, New York, N. Y. Telephone-transmitter.....	229,843	July 13	401	110	18	76
Rose, Allen W., New York, N. Y., assignor to C. A. Cheever. Electric speaking-telephone.....	231,239	Aug. 17	758	212	18	383
Rose, Allen W., assignor to C. A. Cheever, New York, N. Y. Electric speaking-telephone.....	231,362	Aug. 17	884	249	18	403
Rose, Byron. (See Dawn, Harry, assignor.)						
Rose, Charles P., Allentown, assignor of one-half interest to R. W. Mosteller, Slatington, Pa. Shade-roller.....	230,063	July 13	637	178	18	113
Rose, Fabius, Boston, Mass. Corn-husking machine.....	225,026	Mar. 2	51	15	17	465
Rose, George C. (See Rose, Peleg and G. C., assignor.) (Reissue.)						
Rose, George W., Bradford, Pa. Sand-pump.....	233,549	Oct. 19	939	258	18	908
Rose, John H., assignor of one-half interest to E. K. Lockwood, Norwalk, Conn. Toy pistol.....	228,682	June 8	619	167	17	1332
Rose, Peleg and G. C., Norwich, Conn. Machine for separating the fibers of wood for paper-pulp. (Reissue.)	9,110	Mar. 9	555	160	17	562
Rose, Reuben M., Brooklyn, N. Y. Toy.....	233,166	Oct. 12	457	126	18	820
Rose, Reuben M., Brooklyn, N. Y. Fare-indicator.....	234,811	Nov. 23	1241	334	18	1215
Rose, Reuben M., Brooklyn, N. Y. Sewing-machine attachment for darning, &c.....	235,456	Dec. 14	498	143	18	1372
Rose, Timothy, Cortlandville, N. Y. Canal-boat propeller.....	226,931	Apr. 27	943	261	17	934
Roseboom, Garret P., et al. (See Letterman, Charles, assignor.) (Reissue.)						
Roseboom, Garret P., assignor of one-half interest to C. S. Trowbridge, Auburn, N. Y. Machine for grooving pipes.....	230,064	July 13	638	178	18	113
Rosebrooks, John M. (See Wood and Rosebrooks.)						
Rosecrans, William S., San Francisco, Cal. Miner's combination-tool.....	224,957	Feb. 24	1150	329	17	438
Rosecrans, William S., San Francisco, Cal. Exploder for blasting-charges.....	230,820	Aug. 3	254	73	18	288
Rosenberg, Felix J., New York, N. Y. Button attachment.....	229,557	July 6	61	17	18	18
Rosenberg, Felix J., New York, N. Y. Pocket.....	231,618	Aug. 24	1173	328	18	456
Rosencrans, Charles, Philadelphia, Pa. Box-loop for harness-saddles.....	223,761	Jan. 20	664	179	17	135
Rosenfeld, Israil L., assignor of one-fourth interest to M. J. Lasar and A. J. Grinberg, New York, N. Y. Snow-plow.....	227,841	May 18	865	247	17	1139
Rosensteel, Jacob S., West Bellevue Borough, Pa. Nut-lock.....	236,092	Dec. 28	1273	351	18	1516
Rosenstock, Joseph, Elko, Nev. Safety-pocket.....	226,678	Apr. 20	639	178	17	874
Rosenzi, Enrico, assignor of one-fourth interest to T. J. Maloney, Pittsburg, Pa. Blow-pipe for blowing glass.....	233,550	Oct. 19	940	259	18	909
Rosenzweig, Aaron, New York, N. Y. Sheet-metal can.....	232,067	Sept. 7	226	63	18	561
Rosquist, George, Brooklyn, N. Y. Web-winding machine.....	232,650	Sept. 28	930	256	18	700
Ross, Caroline E., executrix. (See Everest and Ross.) (Reissue.)						
Ross, Charles, Hamburg, Germany. Apparatus for filtering liquids.....	227,840	May 18	865	246	17	1139
Ross, Ezra P., assignor of one-half interest to J. F. Behney, Lebanon, Pa. Tire-tightener.....	231,102	Aug. 10	583	166	18	349
Ross, George P. (See Green, William W., assignor.)						
Ross, George P., and P. Vallejo, Bristol, Nev. Double-walled glass fish-globe.....	233,435	Oct. 19	807	223	18	886
Ross, Howard W. (See Bolinger, John B., assignor.)						
Ross, James S., Nashville, Tenn., assignor to National Bell Telephone Company. Electric switch-board.....	229,757	July 6	283	80	18	50
Ross, John, Boston, Mass. Water-closet.....	231,684	Aug. 31	1258	354	18	476
Ross, John, Plains, Pa. Rock and coal drilling machine.....	234,147	Nov. 9	393	107	18	1059
Ross, John G., Lynn, Mass. Jacking mechanism for boots and shoes.....	231,685	Aug. 31	1259	354	18	477
Ross, John G., Lynn, Mass. Boot and shoe heel.....	234,430	Nov. 16	754	203	18	1129



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Ross, John J., Lynn, Mass. Heel-trimming machine.....	236,199	Apr. 6	61	15, 16	17	757
Ross, Jonathan. (See Peirce, James H., assignor.)						
Ross, Joseph F., Ipswich, Mass. Making inner soles for boots and shoes.....	229,556	July 6	60	16	18	17
Ross, Joseph F., Ipswich, Mass. Changeable sign.....	235,652	Dec. 21	733	209	18	1419
Ross, Lester E., Providence, R. I. Shuttle-motion for looms.....	233,551	Oct. 19	941	259	18	909
Ross, Noble G., Chicago, Ill., and T. D. Ross, Coffeyville, Kans. Machine for making } barbed-wire cables.....	233,116	Oct. 12	399	{ 110 111 }	{ 18 18 }	810
Ross, Thomas D. (See Ross, Noble G. and T. D.)						
Ross, William S., Jr. (See Norton, Eugene E., assignor.)						
Rossetti, Antonio L., New York, assignor of one-half interest to O. Lugo, Flushing, N. Y. Gas-stove.....	233,283	Oct. 12	595	164	18	844
Rossetti, Francesco, Padua, Italy, assignor to S. L. M. Barlow, New York, N. Y. Magneto- electric speaking telephony.....	235,173	Dec. 7	134	38	18	1304
Rossetti, John T., Brownsville, Tex. Pendant for stem-winding watches.....	225,874	Mar. 23	1059	302	17	667
Rossi, Auguste J. (See Du Motay and Rossi.)						
Rossi, Gennaro, New York, assignor of one-half interest to L. Maresca, Brooklyn, N. Y. Paint composition.....	229,473	June 29	1582	.....	17	1495
Rossiter, Lindsey, Port Carbon, (Bridgeport P. O.), assignor to himself and N. M. Anderson, Upper Merion, Pa. Vehicle-wheel hub.....	228,940	June 15	959	260	17	1390
Rosson, Josephus H., Columbus, Ky. Broom and brush holder.....	230,342	July 20	982	279	18	176
Rest, F. Julius, assignor of one-half interest to A. Hansler, Milwaukee, Wis. Clothes- mangle.....	230,719	Aug. 3	143	42	18	270
Rete, Charles V., Lancaster, Pa. Car-brake.....	234,493	Nov. 16	827	221	18	1141
Roth, Edw. A., Philadelphia, Pa. Milk-cooling apparatus.....	229,474	June 29	1583	437	17	1495
Roth, George L., Pittsburg, Pa. Machinery for shaping counter-stiffeners.....	225,875	Mar. 23	1059	302	17	667
Roth, Henry, New York, N. Y., assignor to himself and J. G. Fountain, New Orleans, La. Sand-guard for car-axle boxes.....	235,298	Dec. 7	279	79	18	1327
Roth, John G., New York, N. Y., assignor to Metropolitan Manufacturing Company, Mid- dlefield, Conn. Wringing-machine. (Reissue).....	9,158	Apr. 13	524	146	17	845
Roth, Louis. (See Fitch, Lauren M., assignor.)						
Rothenberg, William F., Lincoln, Ill. Street-car propeller.....	226,002	Mar. 30	1231	348	17	708
Rothenbuecher, John. (See Burrier, George W., assignor.)						
Rothenbuecher, John, assignor of one-half interest to M. Banner, Virginia City, Nev. Buckle. Rothenbuecher, John, assignor of one-half interest to J. W. Parker, Virginia City, Nev. In- dicating device.....	226,629	Apr. 20	587	164	17	866
231,103	Aug. 10	584	166	18	349	
Rouart, Stanislas H., Paris, France. Apparatus for effecting interchange of temperatures } of fluids.....	224,611	Feb. 17	746	{ 211 212 }	{ 17 17 }	356
Rouart, Stanislas H., Paris, France. Preparations melting under 32° Fahrenheit, appara- tus therefor, and their application.....	234,494	Nov. 16	828	221	18	1141
Rouchel, John M., New York, assignor of one-half interest to W. Daly, Brooklyn, N. Y. Horseshoe.....	226,422	Apr. 13	316	92	17	812
Roulstone, Edward A. G. (See Shepard, James, assignor.)						
Roulstone, Edward A. G., Boston, Mass. Music-rest for piano-fortes.....	224,042	Feb. 3	78	23	17	217
Roundy, William H., Marshalltown, Iowa. Car-coupling.....	234,727	Nov. 23	1132	305	18	1197
Rouse, Roswell R. (See Hood, Harrison P., assignor.)						
Roush, Jacob B. (See Lippy and Roush.)						
Rousseau, David, New York, N. Y. Electric gas-lighting burner.....	235,024	Nov. 30	1502	404	18	1265
Roussel, Paul C., St. Petersburg, Russia. Deep-sea-sounding apparatus.....	230,661	Aug. 3	81	23	18	259
Roussin, François Z., assignor to A. F. Poirrier, Paris, France. Artificial coloring-matter.....	225,908	Mar. 23	1069	.....	17	672
Routh, George, New Haven, Conn. Milk-can handle.....	235,299	Dec. 7	280	79	18	1327
Rowe, M. A., et al. (See Ward, Alexander F., assignor.)						
Rowe, Thomas, Brooklyn, N. Y. Door-spring.....	224,730	Feb. 17	872	249	17	378
Rowell, Henry L., assignor to G. W. Holden, Dayton, Ohio. Hinged slate.....	224,306	Feb. 10	388	109	17	287
Rowell, Henry L., Dayton, Ohio. Ironing-board.....	226,248	Apr. 6	114	31	17	766
Rowell, John S., Beaver Dam, Wis. Cultivator-teeth.....	232,850	Oct. 5	66	19	18	749
Rowland, Charles, Washington, D. C. Label.....	224,958	Feb. 24	1151	329	17	438
Rowland, Frederick C., New Haven, Conn. Pitman-connection for steam-engines.....	227,059	Apr. 27	1099	303	17	959
Rowland, Thomas F. (See Mallory, William H., assignor.)						
Rowland, Thomas F., New York, N. Y. Valve.....	235,383	Dec. 14	401	112	18	1356
Rowley, Stephen N., Adrian, Mich. Ruffling attachment for sewing-machines.....	233,025	Oct. 5	272	75	18	783
Rowley, William H., assignor of one-half interest to C. J. Crawford, Crawford's Corners, Pa. Standard jack-post, cap-box, and fastening.....	226,200	Apr. 6	64	16	17	757
Roy, Bozil S., Worcester, Mass. Apparatus for turning cylinders of carding-engines.....	229,844	July 13	402	110	18	76
Roy, Bozil S., Worcester, Mass. Machine for grinding the top-flats of carding-engines.....	230,065	July 13	640	178	18	113
Roy, Joseph, Wilmington, Del. Horseshoe-nail machine.....	228,220	June 1	70	21	17	1239
Royce, Abner. (See Hutson, Allen T., assignor.)						
Royce, Wesley. (See Stock and Royce.)						
Royle, John J., Manchester, England. Engine-lubricator.....	230,066	July 13	641	{ 178 179 }	{ 18 18 }	113
Rubarts, Oren, and J. J. Dubruille, Albany, Oreg. Saddle-bern.....	232,763	Sept. 28	1062	290	18	722
Rubenstein, Nathan, Chicago, Ill. Knife for cutting cloth.....	223,544	Jan. 13	412	110	17	85
Rubin, Max, New York, N. Y. Bottle-stopper.....	224,479	Feb. 10	579	167	17	318
Rubin, Max, New York, N. Y. Shawl-strap.....	227,060	Apr. 27	1099	304	17	959
Rubin, Max, New York, N. Y. Fan.....	228,394	June 1	262	74	17	1269
Rubin, Max, New York, N. Y. Pocket-book lock.....	230,821	Aug. 3	255	73	18	829
Rubin, Max, New York, N. Y. Fan.....	234,813	Nov. 23	1243	334	18	1215
Rubin, Max, New York, N. Y., assignor to L. Sanders. Fan. (Reissue).....	9,159	Apr. 13	525	146	17	845
Rubin, Max, assignor to Marx & Son, New York, N. Y. Shawl-strap.....	228,942	June 15	961	261	17	1390
Rubin, Max, assignor to Scheuer & Brother and L. Sanders, New York, N. Y. Fan.....	229,188	June 22	1240	340	17	1440
Rubio, John S., New York, N. Y. Ironing-machine.....	229,758	July 6	285	80	18	51
Ruble, Martin R., Newark, N. J. Renovating feathers.....	224,847	Feb. 24	1037	{ 295 296 }	{ 17 17 }	419
Ruckel, Samuel R., Kansas City, Mo. Fare-box.....	235,900	Dec. 28	1047	289	18	1479
Rucker, William, Sr., Murfreesborough, Tenn. Harrow.....	232,764	Sept. 28	1062	291	18	722
Rudd, Robert, Alexandria, Va. Variable exhaust for locomotives.....	224,307	Feb. 10	388	{ 109 110 }	{ 17 17 }	287
Rudd, William C., Cleveland, Ohio. Device for swinging barrels.....	228,941	June 15	960	260	17	1390
Ruddick, Lindley, Redington, Ind. Shirt-bosom supporter.....	233,877	Nov. 2	57	16	18	997
Rude, George W., et al. (See Rude, John R., assignor.)						
Rude, John R., Liberty, Ind., assignor to himself, S. B. and G. W. Rude. Seeding-machine.....	226,355	Apr. 6	232	68	17	788
Rude, Squire B., et al. (See Rude, John R., assignor.)						
Rudgers, Thomas N., Fowler, Mich. Neck-yoke.....	231,619	Aug. 24	1173	328	18	456
Rudolph, Calvin F., Beeville, Tex. Windmill.....	227,842	May 18	868	247	17	1140
Rue, Isaac T., Brooklyn, N. Y. Tea-pot.....	234,148	Nov. 9	395	107	18	1059

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Ruemping, Fred, Kansas City, Mo. Skylight-bar.....	230,822	Aug. 3	256	73	18	289
Ruff, Karl J., Sandusky, Ohio. Machine for bending snaths.....	232,547	Sept. 21	810	224	18	673
Ruggles, Augustus G. (See Conklin, Theodore F., assignor.)						
Ruggles, Daniel, Fredericksburg, Va. Precipitating rain-falls.....	230,067	July 13	642	179	18	113
Ruhle, George P., Swengel, Pa. Combined scraper and fork.....	223,390	Jan. 6	204	54	17	37
Ruhle, George P., Swengel, Pa. Manure-fork.....	233,808	Oct. 26	1253	348	18	971
Rukenbrod, Charles, Carrollton, Ohio. Nut-lock.....	232,369	Sept. 21	604	166	18	639
Rumely, Meinrad, La Porte, Ind. Spark-arrester.....	227,656	May 18	659	187	17	1107
Rumsey, Lewis M., St. Louis, Mo. Drive-chain.....	230,662	Aug. 3	81	23	18	260
Rumsey, Philo J., Marshalltown, Iowa. Nut-roaster.....	233,026	Oct. 5	273	75	18	783
Rundell, Richard J., Chicago, Ill. Kiln for drying lumber.....	223,862	Jan. 27	803	215	17	168
Rundell, William F., Genoa, N. Y. Pitman-connection.....	225,645	Mar. 16	780	229	17	612
Rundle, George, Palmyra, Wis. Hay elevator and carrier.....	232,548	Sept. 21	811	224	18	673
Rundlett, Charles. (See Rich and Rundlett.)						
Runstetler, Andrew, Moline, Ill., assignor to Farmers Friend Manufacturing Company, Dayton, Ohio. Corn-planter.....	228,396	June 1	265	74	17	1260
Runstetler, Michael, assignor to Farmers Friend Manufacturing Company, Dayton, Ohio. Corn-planter.....	226,115	Mar. 30	1358	{ 382 383 }	{ 17	727
Runstetler, Michael, assignor to Farmers Friend Manufacturing Company, Dayton, Ohio. Corn-planter.....	226,116	Mar. 30	1360	383	17	728
Runstetler, Michael, assignor to Farmers Friend Manufacturing Company, Dayton, Ohio. Corn-planter.....	231,104	Aug. 10	584	166	18	349
Runstetler, Michael, assignor to Farmers Friend Manufacturing Company, Dayton, Ohio. Machine for upsetting blanks for corn-planter runners.....	231,620	Aug. 24	1174	328	18	456
Runstetler, Michael, assignor to Farmers Friend Manufacturing Company, Dayton, Ohio. Machine for bending and shaping runners of corn-planter.....	231,621	Aug. 24	1175	328	18	457
Runyan, Richard B. (See Duret, James S., assignor.)						
Rupert, Joseph, York, Pa. Thill-coupling.....	222,684	June 8	621	167	17	1333
Rupp, John, assignor of two-thirds interest to W. Beckind and L. Sieber, New York, N. Y. Plug-tobacco.....	227,927	May 25	987	283	17	1170
Rush, George, Jr., Philadelphia, Pa. Roller-skate.....	229,011	June 22	1058	288	17	1413
Rush, James. (See Fleming, Samuel W., assignor.)						
Rushforth, William H., Yorkshire, England, assignor of one-fourth interest to J. K. Street, Camden, N. J. Fire-box for locomotives.....	223,863	Jan. 27	804	216	17	168
Rushforth, William H., assignor to himself, S. H. Grey, J. Burr, and W. S. Scull, Camden, N. J. Fire-box for locomotives.....	231,240	Aug. 17	759	212	18	383
Rusk, James M., Malta, Ohio. Fruit-drier.....	236,093	Dec. 28	1274	{ 351 352 }	{ 18	1516
Rusmissele, George B. (See Hemp, James, assignor.)						
Russel, Hermann. (See Sanftleben and Russel.)						
Russell, Albert L., Somerville, assignor to himself and E. B. Welch, Cambridge, Mass. Electric railway-signal.....	235,025	Nov. 30	1504	405	18	1265
Russell, Allen A., Indianapolis, Ind. Grain-separator.....	235,965	Dec. 28	1134	{ 313 314 73 74 75 76 }	{ 18	1493
Russell, Andrew H., U. S. Army, Watertown, Mass. Magazine fire-arm.....	230,823	Aug. 3	257	{ 74 75 76 }	{ 18	289
Russell & Co., Henry. (See Nahe, Henry, assignor.)						
Russell Cutlery Company, John. (See Butler, Calvin L., assignor.)						
Russell, Edward H. (See Schulder and Russell.)						
Russell & Erwin Manufacturing Company. (See Burgess and Sanford, assignors.)						
Russell & Erwin Manufacturing Company. (See Russell, Henry E., Jr., assignor.)						
Russell & Erwin Manufacturing Company. (See Smith, Charles H., assignor.)						
Russell, Fisk. (See Weeks and Russell.)						
Russell, George, McKeesport, Pa. Enameling compound.....	230,965	Aug. 10	431	-----	18	324
Russell, George, and R. Gordon, McKeesport, Pa. Pipe-coupling.....	235,384	Dec. 14	402	112	18	1356
Russell, George H., Newburg, Pa. Clothes-ponnder.....	231,731	Aug. 31	1317	371	18	486
Russell, George W., Lawrence, Mass. Brick for evaporating-pans.....	226,114	Mar. 30	1357	382	17	727
Russell, George W., Lawrence, Mass. Evaporating-furnace.....	233,117	Oct. 12	403	111	18	810
Russell, Henry E., Jr., assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Chain-bolt.....	231,195	Aug. 17	705	198	18	375
Russell, Henry L., Bloomington, Ill. Automatic cut-off for cistern-leaders.....	223,391	Jan. 6	205	54	17	37
Russell, Henry L., Bloomington, Ill. Indicator-lock.....	223,955	Jan. 27	912	{ 243 244 }	{ 17	185
Russell, Henry L., assignor, by mesne assignments, to Russell Indicator Lock Company, Bloomington, Ill. Indicator-lock. (Reissue.)	9,300	July 13	699	195	18	123
Russell, Henry L., assignor to Russell Indicator Lock Company, Bloomington, Ill. Indicator-lock.....	232,069	Sept. 7	228	63, 64	18	561
Russell, Henry L., assignor to Russell Indicator Lock Company, Bloomington, Ill. Indicator-lock.....	232,070	Sept. 7	231	64	18	562
Russell Indicator Lock Company. (See Russell, Henry L., assignor.)						
Russell Indicator Lock Company. (See Russell, Henry L., assignor.) (Reissue.)						
Russell, James M., Arcadia, and D. Burgess, assignors of one-third interest to T. A. Rambo, Noblesville, Ind. Spark-arrester.....	229,642	July 6	147	42	18	30
Russell, James R., Boston, Mass. Forming naps for hats.....	227,584	May 11	569	163	17	1082
Russell, James R., Newark, N. J. Nap-forming apparatus.....	227,585	May 11	571	163	17	1082
Russell, Jasper N. (See Jenkins, Eugene N., assignor.)						
Russell, Jeremiah, Portland, Me. Carpenter's gage-tool.....	230,440	July 27	1133	318	18	207
Russell, John, assignor to himself and G. P. Funkhouser, Plattsburg, Mo. Pitman-connection.....	223,817	Jan. 27	750	{ 200 201 }	{ 17	139
Russell, John, assignor to himself, G. P. Funkhouser, and W. W. Scutt, Plattsburg, Mo. Middlings-purifier.....	223,818	Jan. 27	751	201	17	139
Russell, John, Berlin, Pa. Grain-cleaning machine.....	232,303	Sept. 14	509	142	18	617
Russell Manufacturing Company. (See Cady, Henry W., assignor.)						
Russell, Robert, Pittsburg, and H. McDonald, Allegheny, assignors to Phillips, Nimick & Co., Pittsburg, Pa. Flanging-machine.....	227,061	Apr. 27	1100	304	17	959
Russell, Samuel, Brooklyn, N. Y. Telephone.....	228,395	June 1	263	74	17	1269
Russell, William H., Rutherford, N. J., assignor to himself and R. Farley, Jr., New York, N. Y. Hydraulic motor.....	233,436	Oct. 19	808	223	18	886
Ruthenburg, Marcus. (See Ruthenburg, Solomon and M.)						
Ruthenburg, Solomon and M., Cincinnati, Ohio. Paper-bag machine.....	226,423	Apr. 13	317	92	17	813
Rutherford, John, San Francisco, Cal. Grinding and pulverizing apparatus.....	224,357	Feb. 10	445	128	17	296
Rutherford, Walter E., Westhampton, Mass. Refrigerating butter-carrier.....	232,549	Sept. 21	813	224	18	674

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Ruthven, John, St. Louis, Mo. Carbureting apparatus.....	234,108	Nov. 2	337	93	18	1043
Rutter, Clarence. (See Kirby, Elijah, assignor.)						
Rutter, John C. (See Clark, Robert J., assignor.)						
Rutter, William F., Atlantic City, N. J. Boring-bit gage.....	232,851	Oct. 5	67	19	18	750
Ryan, Amos P., Waynesburg, Pa. Bosom-board.....	229,475	June 29	1583	438	17	1495
Ryan, Joseph, St. Louis, Mo. Cylinder-cock.....	235,101	Dec. 7	42	13	18	1288
Ryan, Thomas, assignor of one-half interest to W. Richmond, Lockport, N. Y. Smut-mill.....	230,343	July 20	983	279	18	176
Ryckman, William J., New York, N. Y. Batting-shoe.....	223,392	Jan. 6	206	54	17	38
Ryder, Andrew V., Germano, Ohio. Lifting-jack.....	230,966	Aug. 10	431	124	18	324
Ryer, William H., assignor to himself and A. Hirshheimer, La Crosse, Wis. Sulky-plow.....	234,615	Nov. 16	987	262	18	1168
Ryerson, Louis J., Paterson, N. J. Starching-machine.....	230,344	July 20	984	279	18	176
Ryn, John, Cincinnati, Ohio. Heating-stove.....	226,201	Apr. 6	65	16	17	757
Saake, Carl. (See Brauer, Louis, assignor.)						
Sabin, Charles, Rockford, Ill. Mucilage or paste vessel.....	232,906	Oct. 5	133	35	18	760
Sabin, Chauncey B., Galveston, Tex. Mailing-box.....	227,447	May 11	417	121	17	1057
Sabin, John I., San Francisco, Cal. Electrical switch-board.....	230,069	July 13	644	179 } 180 }	18	114
Sabin, John I., San Francisco, Cal. Electric annunciator.....	232,852	Oct. 5	67	19	18	750
Sabin, Louis, et al. (See Jansen, Edmund, assignor.)						
Sabin, Luther M., Chicago, Ill. Electric motor.....	225,724	Mar. 23	885	258	17	639
Saccone, Giovanni, Sacramento County, Cal. Windmill.....	226,357	Apr. 6	233	68	17	788
Sachmann, Harald, et al. (See Alsing, Frederik, assignor.)						
Sack, William M., Oakland, Cal. Measuring-faucet.....	224,108	Feb. 3	159	45	17	229
Sack, William M., Oakland, Cal. Water-closet valve.....	235,573	Dec. 14	637	181	18	1396
Sackett, Augustine, New York, N. Y. Coating paper and cloth.....	226,459	Apr. 13	363	104	17	819
Sackett, Augustine, New York, N. Y. Coating paper and cloth.....	231,450	Aug. 24	987	278	18	428
Sackett, Charles E., Matilda Furnace, Pa. Combined plow and pulverizing apparatus.....	233,809	Oct. 26	1254	348 } 349 } 350 }	18	971
Sadler, Charles J. J., Milford, Pa., and P. C. Sadler, New York, N. Y. Razor.....	234,070	Nov. 2	296	82	18	1035
Sadler, Frank H. (See Capron and Sadler.)						
Sadler, John W., Glasgow, North Britain. Construction of ships.....	232,651	Sept. 28	933	256 } 257 }	18	701
Sadler, Peter C. (See Sadler, Charles J. J. and P. C.)						
Safety Axle and Top Standard Company. (See Egerton, C. Calvert, assignor.)						
Safford, Joseph A., Boston, Mass. Leather-splitting machine.....	230,895	Aug. 10	360	104 } 105 }	18	313
Sager, John, Glade township, Warren county, Pa. Blasting in oil-wells.....	229,845	July 13	403	111	18	76
Saget, Julien, New Orleans, La. Cartridge.....	226,117	Mar. 30	1362	384	17	728
Saggus, David A., assignor to himself and G. T. Rhodes, Crawfordville, Ga. Guano-dis-tributer.....	230,967	Aug. 10	432	124	18	324
Saladee, Cyrus W., Washington, D. C. Side-bar wagon.....	226,424	Apr. 13	320	92	17	813
Saladee, Cyrus W., Washington, D. C. Road-wagon.....	228,397	June 1	266	74	17	1270
Saladee, Cyrus W., Washington, D. C. Road-wagon.....	233,437	Oct. 19	809	223	18	887
Saladee, Cyrus W., Washington, D. C. Road-wagon.....	233,438	Oct. 19	811	224	18	887
Salamander Felting Company. (See Riley, John, assignor.)						
Salamon, Nabum. (See Hancock and Salamon.)						
Salathé, Fritz, Basle, Switzerland, assignor to J. J. Keller, trustee, New York, N. Y. Manu-facture of anthracene.....	227,588	May 11	573	164	17	1083
Salisbury, George P., assignor to Winchester Repeating Arms Company, New Haven, Conn. Cartridge.....	226,932	Apr. 27	943	262	17	935
Salisbury, George P., assignor to Winchester Repeating Arms Company, New Haven, Conn. Cartridge-assemblying machine.....	232,907	Oct. 5	134	35, 36	18	760
Salisbury, Warren F., assignor to Troy Stamping Works, Troy, N. Y. Coal-hod.....	232,618	Sept. 28	894	247	18	694
Salisbury, Wilber S., Chicago, Ill. Steam-boiler.....	226,202	Apr. 6	66	16, 17	17	757
Salisbury, Wilber S., Chicago, Ill. Self-feeding furnace for steam-boilers.....	226,203	Apr. 6	67	17	17	758
Salisbury, Wilber S., Chicago, Ill. Exhaust-draft nozzle.....	226,204	Apr. 6	67	17	17	758
Salmon, Ezekiel Y., Lynchburg, Tenn. Hog-cholera compound.....	230,672	Aug. 3	93		18	261
Salmon, Ira A., Boston, Mass. Car-heater.....	227,997	May 25	1076	306 } 307 }	17	1184
Salot, George, Dubuque, Iowa. Whiffletree.....	227,843	May 18	870	247	17	1140
Salot, George, Dubuque, Iowa. Protractor.....	227,844	May 18	870	248	17	1140
Salter, John H., assignor to himself and L. W. Gifford, St. Mary's, Pa., and C. C. Bigelow, New York, N. Y. Magazine fire-arm.....	232,766	Sept. 28	1064	291	18	722
Saltsman, Robert J. (See Graff, Felix B., assignor.)						
Salveter, Theodore C., assignor of one-half interest to R. H. Parks, St. Charles, Mo. Rail-way draw-bar.....	224,358	Feb. 10	447	128	17	296
Salvy, Emile, Paris, France. Preparation of gelatine for vitrifiable prints.....	223,762	Jan. 20	665		17	135
Sammis, John A., assignor to C. S. Phillips, Brooklyn, N. Y. Nut-lock.....	234,894	Nov. 30	1344	362	18	1239
Sammons, Jacob S., New York, N. Y. Copying-press.....	235,966	Dec. 28	1135	314	18	1493
Sample, James, Blyth, Great Britain. Automatic disconnecting-gear for ships' boats.....	233,027	Oct. 5	274	75	18	783
Sampsel, John E., Connellsville, Pa. Smoke box and stack for locomotives.....	227,657	May 18	659	187	17	1107
Sampson, George W., Tecumseh, Kans. Churn-power.....	227,305	May 4	245	71	17	1018
Sampson, William S., New York, N. Y. Car-coupling.....	229,916	July 13	474	131	18	87
Sampson, William S., New York, N. Y. Car-coupling link.....	229,917	July 13	475	131	18	88
Sampson, William S., Brooklyn, N. Y. Car-coupling.....	233,028	Oct. 5	275	76	18	784
Samuel, Charles W. (See Hart, William E., assignor.)						
Samuel, Joseph B., Philadelphia, Pa. Grate for fire-places.....	226,356	Apr. 6	233	68	17	788
Samuelli, Pascal H., Easton, Ill. Device for unloading wagons and dumping them.....	226,425	Apr. 13	321	92, 93	17	813
Samuels, Samuel D. (See Lissberger and Samuels.)						
Sanborn, Albert A., Newark, N. J., assignor to himself and Celluloid Novelty Company. Elastic die for pressing celluloid collars, cuffs, &c.....	233,878	Nov. 2	58	16	18	997
Sanborn, George O., Boston, Mass. Pickle-package.....	229,189	June 22	1241	341	17	1440
Sanborn, Jacob R., and E. A. Ferry, Springfield, Mass. Thill-coupling.....	235,654	Dec. 21	735	209	18	1419
Sanborn, Joseph S. (See Leviness and Vanhorn, assignors.) (Reissue.)						
Sander, Joel, assignor to himself and C. F. F. Stein, Hamburg, Germany. Wind-wheel.....	234,617	Nov. 16	989	263	18	1168
Sanders, David P., Canton, Pa., assignor to himself and O. P. Sanders. Carbureting appa-ratus.....	223,763	Jan. 20	666	179	17	135
Sanders, George W., assignor to W. H. H. Slack, Springfield, Vt. Joint for dolls.....	235,300	Dec. 7	281	79	18	1327
Sanders, John D., Lone Oak, Tex. Open link.....	235,457	Dec. 14	499	144	18	1372
Sanders, Louis, et al. (See Rubin, Max, assignor.)						
Sanders, Louis. (See Suhr and Wisc, assignors.)						
Sanders, Louis. (See Rubin, Max, assignor.) (Reissue.)						
Sanders, Oliver P. (See Sanders, David P., assignor.)						
Sanders, Richard H., Philadelphia, Pa. Oro-separator.....	230,500	July 27	1205	339	18	219

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Sanderson, Charles C. (See Miller, William, assignor.)						
Sanderson, Charles C., Dedham, Mass. Self-leveling berth for vessels	228,278	June 1	146	41	17	1250
Sanderson, Charles C., Dedham, Mass. Self-leveling ship's berth	228,279	June 1	147	41	17	1250
Sandford, Amzi A., Mont Clair, N. J. Elevator and fountain	225,646	Mar. 16	781	229	17	612
Sandford, Frank V., Chelsea, Mass., assignor of one-third interest to J. W. Bartlett, New York, N. Y. Electric gas-lighting apparatus	232,304	Sept. 14	511	143	18	617
Sandford, Timbrook, Brooklyn, N. Y. Grain-tally	230,824	Aug. 3	267	76	18	290
Sandham, John. (See Johnson, Henry C., assignor.)						
Sandles, John, Hinsdale, Ill. Washing-machine	228,685	June 8	621	167	17	1333
Sandwich Manufacturing Company <i>et al.</i> (See Adams, Henry A., assignor.) (Reissue.)						
Sanford, Addison V., Binghamton, N. Y., assignor of one-half interest to W. E. Lincoln, Warren, Mass. Cream-raising apparatus	226,205	Apr. 6	68	17, 18	17	758
Sanford, Addison V., assignor to himself and O. W. Chapman, Binghamton, N. Y. Sash-fastener	234,071	Nov. 2	297	82	18	1035
Sanford, Albert, Oshkosh, Wis. Ferrule for cant-hooks	228,943	June 15	961	261	17	1391
Sanford, Albert, Oshkosh, Wis. Ox-shoe	231,105	Aug. 10	586	167	18	350
Sanford, Albert, assignor of one-half interest to J. W. Hicks, Golden City, Mo. Mechanism for propelling cars	222,652	Sept. 28	935	257	18	701
Sanford, David T., Ansonia, Conn. Die for drawing strips of metal	231,933	Sept. 7	62	15	18	534
Sanford, De Witt C., assignor of one-half interest to E. H. Sanford, St. Louis, Mo. Refrigerator	223,764	Jan. 20	667	179	17	135
Sanford, De Witt C., St. Louis, Mo. Porous or spongy mineral composition and non-conductor of heat	230,151	July 20	759	.....	18	141
Sanford, Elizabeth H. (See Sanford, De Witt C., assignor.)						
Sanford, George. (See Peters, Samuel, assignor.)						
Sanford, George H., assignor to C. Meyer, New Brunswick, N. J. Rubber boot and gaiter	228,398	June 1	267	75	17	1270
Sanford, L. M. (See Rood, Netta G., assignor.)						
Sanford, Rollin. (See Burgess and Sanford.)						
Sanford, William, Cohoes, N. Y. Buckboard-wagon	232,765	Sept. 28	1063	291	18	722
Sanfleben, Charles, and H. Russel, Detroit, Mich. Cross-bow	230,896	Aug. 10	362	105	18	313
Saugster, Hugh, assignor of one-half interest to T. J. Beebe, Plano, Ill. Lucased can	232,905	Oct. 5	131	35	18	760
Saugster, James, Buffalo, N. Y. Paper for bank notes, checks, &c.	228,221	June 1	71	21	17	1239
Sanguinet, Frederick W., St. Louis, Mo. File for packages of letters	224,230	Feb. 3	292	84	17	252
Santrock, Henry, Harvey township, Smith county, Kans. Grain-drill	233,439	Oct. 19	811	224	18	867
Sapp, George B. (See Long, Samuel L., assignor.)						
Sapp, Jacob, and W. H. Mantz, Mount Vernon, Ill. Combined plow and seed-planter	234,616	Nov. 16	988	263	18	1168
Sarcia, Jules, New York, N. Y. Electric-light burner	234,618	Nov. 16	991	263	18	1168
Sard, Grange, Jr., <i>et al.</i> , trustees. (See Fulton, Calvin, assignor.) (Reissue.)						
Sard, Grange, Jr., <i>et al.</i> , trustees. (See Moore, George R., assignor.) (Reissue.)						
Sargeant Manufacturing Company. (See Selleck, Robert M., assignor.)						
Sargent, Calvin J., assignor to himself, J. W. Fulton, and C. H. Tenney & Brother, Methuen, Mass. Hat-pouncing machine	226,554	Apr. 13	477	134	17	837
Sargent, Calvin J., assignor to himself, J. W. Fulton, and C. H. Tenney & Brother, Methuen, Mass. Hat-pouncing machine	235,574	Dec. 14	638	182	18	1396
Sargent & Co. (See Bradford, Phmorm, assignor.)						
Sargent, Francis G., <i>et al.</i> (See Ingalls, Charles L., assignor.)						
Sargent, Frederick G., Westford, Mass. Wool-washing machine	223,393	Jan. 6	207	55	17	38
Sargent, Frederick G., Graniteville, Mass. Wool-oiling machine	224,044	Feb. 3	79	24	17	217
Sargent, Frederick G., Graniteville, Mass. Wool-washing machine	227,928	May 25	988	283	17	1170
Sargent, Frederick G., Graniteville, Mass. Wool-oiling machine	229,012	June 22	1059	288	17	1413
Sargent, Frederick G., Graniteville, Mass. Wool-washing machine	230,152	July 20	761	212	18	141
Sargent, Frederick G., Graniteville, Mass. Wool-washing machine	235,901	Dec. 28	1048	289 } 290 }	18	1479
Sargent, George H., New York, N. Y. Latch-lever	227,587	May 11	572	164	17	1083
Sartwell, Charles M., Maquoketa, Iowa. Preparing moss for upholstery	231,106	Aug. 10	587	.....	18	350
Sartwell, William E., Lowell, Mass., assignor of one-half interest to J. W. Currier, North Troy, N. Y. Picker-staff check	233,555	Oct. 19	947	260	18	910
Sass, Louis. (See Cross, Christopher G., assignor.)						
Sassack, Wilhelm, New York, N. Y. Machine for smoothing wood, &c.	224,480	Feb. 10	580	167	17	318
Sassinot, Louis R., New Orleans, La. Filter	232,072	Sept. 7	235	65	18	562
Sattison, Jacob, assignor of one-half interest to J. Truxel, Ripley township, Huron county, Ohio. Butter-worker	223,654	Jan. 20	547	148	17	116
Sattler, Henry, Hermann, Mo. Plow	225,077	Mar. 2	120	34	17	477
Sauder, Theodore. (See Snyder, George, assignor.)						
Sauer, Francis. (See Hagmann and Sauer.)						
Sauerbrey, Valentin, Basle, Switzerland. Breech-loading fire-arm	225,168	Mar. 2	209	59	17	492
Sauerbrey, Valentin, Basle, Switzerland. Cartridge-box	225,169	Mar. 2	212	59	17	493
Sauerbrey, Valentin, Basle, Switzerland. Breech-loading fire-arm	225,423	Mar. 9	520	150	17	556
Sault, Thomas. (See Alberger and Sault.)						
Saunders, Alexander, New York, assignor to D. Saunders' Sons, Yonkers, N. Y. Nipple-chuck	235,902	Dec. 28	1050	290	18	1479
Saunders, Andrew, assignor to D. Saunders' Sons, Yonkers, N. Y. Pipe-cutter	234,689	Nov. 23	1093	293	18	1191
Saunders, Frank, Brooklyn, N. Y. Exercising-machine	228,277	June 1	144	41	17	1250
Saunders, John, Manayunk, assignor of one-half to F. J. Obert, Reading, Pa. Slide-valve gate for paper-pulp digesters, &c.	234,431	Nov. 16	755	203	18	1129
Saunders' Sons, D. (See Saunders, Alexander, assignor.)						
Saunders' Sons, D. (See Saunders, Andrew, assignor.)						
Saurer, John, Dalton, Ohio. Cleaner for grain-drill hoes	230,068	July 13	643	179	18	114
Sautereau, Gustave. (See Pouchet and Sautereau.)						
Savage, Elliot, assignor to Savage Furnace Company, West Meriden, Conn. Metallurgical furnace	228,944	June 15	962	261	17	1391
Savage, Ezra W., Ashtabula, Ohio. Sap-spout	224,229	Feb. 3	291	84	17	252
Savage, Frank A., assignor to Booth, Dulany & Co., Kuttawa, Ky. Spoke-finishing machine	230,663	Aug. 3	83	23	18	260
Savage Furnace Company. (See Savage, Elliot, assignor.)						
Savage, James S., Newton, Mass. Car-platform gate	234,072	Nov. 2	298	82	18	1035
Savage, Richard H., San Francisco, Cal. Electrical recording-target	232,417	Sept. 21	603	182 } 183 }	18	648
Savage, Walter, Crookston, Minn. Snow-plow	234,814	Nov. 23	1243	334	18	1215
Sawyer, Addison M., Athol, Mass. Treating spirituous liquors	232,071	Sept. 7	234	64	18	562
Sawyer, Charles D., assignor of one-half interest to J. K. Case, Vincennes, Ind. Gate-closer	231,107	Aug. 10	588	167	18	350
Sawyer, Frederick W. (See Morrill and Sawyer.)						
Sawyer, Harriet A., St. Louis, Mo. Dish-beater	230,199	July 20	811	230	18	150



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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Sawyer, Henry, Chelsea, Mass. Bluing-package	224,731	Feb. 17	872	249	17	378
Sawyer, Joseph, London, England. Furnace	235,458	Dec. 14	499	144	18	1372
Sawyer, Sylvester, Gardner, Mass. Brake for bicycles	225,239	Mar. 9	305	87	17	522
Sawyer, Willard W., assignor to B. B. Hill, Springfield, Mass. Hand-stamp	228,121	May 25	1208	344	17	1205
Sawyer, William. (See Sawyer, William E. and W.)						
Sawyer, William, New York, N. Y. Apparatus for treating carbon pencils for electric lights	224,612	Feb. 17	749	212	17	356
Sawyer, William, New York, N. Y. Dynamo-electric machine	227,845	May 18	872	248	17	1140
Sawyer, William, New York, N. Y. Electric lamp	228,123	May 25	1209	344	17	1205
Sawyer, William, New York, N. Y. Artificial resistance for electric-light circuits	228,123	May 25	1210	344	17	1206
Sawyer, William, New York, N. Y. Automatic regulator for electric-light circuits	230,345	July 20	985	279	18	176
Sawyer, William, New York, N. Y. Automatic safety-switch for electric-light circuits	230,346	July 20	987	280	18	177
Sawyer, William, New York, N. Y. Electric lamp	233,284	Oct. 12	596	164	18	844
Sawyer, William, New York, N. Y., assignor to Eastern Electric Manufacturing Company, Middletown, Conn. Electric lamp	227,386	May 11	354	104	17	1046
Sawyer, William, New York, N. Y., assignor to Eastern Electric Manufacturing Company, Middletown, Conn. Electric lamp	227,387	May 11	356	104	17	1047
Sawyer, William, New York, N. Y., assignor to Eastern Electric Manufacturing Company, Middletown, Conn. Electric lamp	227,388	May 11	357	104	17	1047
Sawyer, William, New York, N. Y., assignor to Eastern Electric Manufacturing Company, Middletown, Conn. Electric lamp	227,389	May 11	357	105	17	1047
Sawyer, William, New York, N. Y., assignor to Eastern Electric Manufacturing Company, Middletown, Conn. Electric lamp	227,390	May 11	358	105	17	1047
Sawyer, William, New York, N. Y., assignor to Eastern Electric Manufacturing Company, Middletown, Conn. Dynamo-electric machine	235,385	Dec. 14	402	113	18	1356
Sawyer, William, New York, N. Y., assignor to Eastern Electric Manufacturing Company, Middletown, Conn. Electric lamp	235,459	Dec. 14	500	144	18	1372
Sawyer, William E., New York, N. Y. Electrical safety device for elevators	229,658	July 6	165	46	18	33
Sawyer, William E., New York, N. Y. Electrical safety device for elevators	231,743	Aug. 31	1329	374	18	487
Sawyer, William E., New York, and A. Man, Brooklyn, N. Y., assignors to Electro Dynamic Light Company. Carbon for electric lights	229,335	June 29	1421	.....	17	1472
Sawyer, William E., New York, and A. Man, Brooklyn, N. Y., assignors to Electro Dynamic Light Company. Electric switch	229,476	June 29	1584	438	17	1495
Sawyer, William E. and W., New York, N. Y., assignors to Eastern Electric Manufacturing Company, Middletown, Conn. Electric-lighting switch	235,460	Dec. 14	501	144	18	1373
Sawyer, William H., assignor to E. F. Phillips, Providence, R. I. Attachment for mechanically connecting hand-telephones	224,359	Feb. 10	448	129	17	296
Sawyer, William H., assignor to E. F. Phillips, Providence, R. I. Supporting-head for compound electric conductors	233,440	Oct. 19	813	224	18	887
Sawyers, Theodore K., assignor of one-half interest to S. C. Harper, Monroe township, Morgan county, Ind. Running-gear for wagons	225,876	Mar. 23	1060	303	17	668
Saxby, John, Kilburn, England, assignor to Toucey & Buchanan Interlocking Switch Company, Harrisburg, Pa. Locking apparatus for switches and signals	230,200	July 20	812	{ 230 231 }	{ 18 18 }	{ 150 150 }
Saxton, Charles R., et al. (See Harris and Hardin, assignors.)						
Saybolt, Charles H., New York, N. Y. Refrigerator	229,277	June 29	1342	368	17	1462
Sayers, Walter S., Guelph, Ontario, Canada. Ventilator	227,586	May 11	572	164	17	1083
Saylor, E. R., et al. (See McClintock, William A., assignor.)						
Saylor, William. (See Dunn, Charles W., assignor.)						
Scanlan, Edward, Louisville, Ky. Grate for fire-places	233,556	Oct. 19	948	261	18	910
Scanlan, John, Chicago, Ill. Tailor's measuring device	233,441	Oct. 19	814	224	18	897
Scanlan, Thomas F., Boston, Mass. Music-desk for organs	230,897	Aug. 13	363	105	18	313
Scannell, Roger F., and J. E. Lipscombe, Boston, Mass. Filter	226,249	Apr. 6	115	32	17	766
Scannell, Roger F., and J. E. Lipscombe, Boston, Mass. Filter	230,347	July 20	988	280	18	177
Scantlin, James M., Evansville, Ind. Tilting can	235,174	Dec. 7	136	39	18	1304
Scantlin, Thomas, Evansville, Ind. Ice-cream freezer	223,765	Jan. 20	668	180	17	136
Scarr, Abraham C., Maryborough township, Wellington county, Ontario, Canada. Reaping-machine	235,903	Dec. 28	1051	290	18	1479
Scarritt, Nathan, Kansas City, Mo. Gate	236,094	Dec. 28	1276	352	18	1516
Scattergood, Charles F., assignor to H. V. Scattergood, Albany, N. Y. Cotton-gin	227,063	Apr. 27	1103	304	17	959
Scattergood, H. V. (See Scattergood, Charles F., assignor.)						
Schad, Carl F., Bellefonte, Pa. Glass and other furnaces	230,577	July 27	1285	362	18	233
Schaeidler, Jacob, Bridgeport, Conn. Joining metal plates	232,074	Sept. 7	237	65	18	563
Schaefer, Charles, Toledo, Ohio. Shoe-maker's measure	234,205	Nov. 9	471	128	18	1073
Schaefer, John A., assignor to J. A. Schaefer, Jr., R. W. Davies, and J. Stockinger, New York, N. Y. Extracting malt	234,815	Nov. 23	1244	.....	18	1215
Schaefer, William G., Goshen, Ind. Curry-comb	223,864	Jan. 27	805	216	17	168
Schaeffer, Gottlob, Göppingen, Württemberg, Germany. Magnetic separator	234,816	Nov. 23	1245	335	18	1215
Schäfer, Theodore, Maroa, Ill. Match-box	230,720	Aug. 3	144	42	18	270
Schaffer, August, Newark, N. J. Button-hole cutter	226,358	Apr. 6	234	69	17	788
Schaffer, Friedrich, Rothenbach, Prussia, Germany. Furnace	235,904	Dec. 28	1052	290	18	1479
Schaffer, John, St. Louis, Mo. Eyeglasses	228,399	June 1	267	75	17	1270
Schaffer, John, St. Louis, Mo. Eyeglasses. (Reissue)	9,460	Nov. 9	689	186	18	1110
Schalck, George, Pottsville, Pa. Trigger for fire-arms	226,555	Apr. 13	479	134	17	837
Scharowsky, Carl J. (See Jurisch, Lewis, Proell, and Scharowsky.)						
Schater, Joseph, assignor of one-half interest to M. Rauch, Syracuse, N. Y. Rocker for chairs and cradles	227,181	May 4	106	31	17	995
Schatz, Adam E. (See Wiesebrock, Frederick W., assignor.)						
Schau, Phillip, Cooper, assignor of one-half interest to J. Schuster, Kalamazoo, Mich. Grain-seeder	229,013	June 22	1060	288	17	1412
Schaubel, Henry, assignor of one-half interest to E. L. Levy, Philadelphia, Pa. Superheater for steam-boilers. (Reissue)	9,069	Feb. 10	608	176	17	323
Schaurer, George P., assignor to himself and J. A. Kellogg, Nashville, Tenn. Rock-drill	227,062	Apr. 27	1102	304	17	959
Schedler, Robert W. (See Mussgiller and Schedler. (Reissue.)						
Schecr, Peter. (See Jasmagy, Gabriel, assignor.)						
Scheidler, John, Coldwater, Mich. Post-hole digger	226,118	Mar. 30	1363	384	17	728
Scheina, Josef, assignor to F. Kroeber, New York, N. Y. Clock-case	229,643	July 6	148	42	18	31
Scheina, Josef, New York, N. Y. Clock-case	235,655	Dec. 21	737	209	18	1419
Schellert, Charles R., Indianapolis, assignor to himself and R. Attridge, Brightwood, Ind. Railway-joint	223,249	Jan. 6	32	12	17	11
Schelp, Fred., Jr., Ballwin, Mo. Vehicle-spring	235,301	Dec. 7	281	79	18	1328
Schenck, Archibald A. (See Lowden, James J., assignor.)						
Schenck, Martin B., Fulton, N. Y. Stove-truck	234,336	Nov. 9	619	169	18	1098

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
			Spec.	Dr'g.	Vol.	Page.
Scherb, August and C., Vienna, Austria. Machine for wiring and flanging sheet metal . . .	227,846	May 18	873	249	17	1140
Scherb, Carl. (See Scherb, August and C.)						
Scherich, Christian, Lisburn, Pa. Ticket-holder . . .	228,280	June 1	149	41	17	1250
Schermerhorn, Elias C., Alder Creek, N. Y. Shingle-machine . . .	230,070	July 13	645	180	18	114
Schermerhorn, Richard. (See Gillett, Webster, assignor.)						
Scheuer & Brother, <i>et al.</i> (See Rubin, Max, assignor.)						
Scheuer, Simon, New York, N. Y. Pocket-book handle . . .	233,703	Oct. 26	1135	317	18	951
Schifflele, Fridolin, St. Louis, Mo. Culinary vessel . . .	230,201	July 20	815	231	18	150
Schiffing, Albert, assignor of two-thirds interest to E. Over, Indianapolis, Ind. Surface-gage .	225,950	Mar. 30	1170	332	17	699
Schilling, F. A. (See Lehmann, Paul, assignor.)						
Schilling, Gustav, and S. Florsheim, Chicago, Ill. Pantaloon-garment . . .	224,559	Feb. 17	678	193	17	345
Schilling, William J., New York, N. Y., assignor to G. W. Davids. Reservoir mucilage-stand .	232,211	Sept. 14	401	111	18	598
Schillinger, John J., New York, N. Y. Fire-proof building . . .	233,029	Oct. 5	277	76	18	784
Schillinger, John J., New York, N. Y. Refrigerator-building . . .	233,030	Oct. 5	277	76	18	784
Schimansky, Otto, Oak Harbor, Ohio. Wagon-body . . .	230,578	July 27	1286	362	18	233
Schindler, Alexander, New York, N. Y. Tapping-gnard . . .	224,231	Feb. 3	292	85	17	252
Schirmmeister, Charles. (See Michel and Schirmmeister.)						
Schlacks, Henry. (See Hayes, Jeffery, and Schlacks.)						
Schleifer, Bertha, New York, N. Y. Hook and eye fastener . . .	226,793	Apr. 20	757	211	17	893
Schlesinger, Isidore, Chicago, Ill. Furniture-packing fastener . . .	229,055	June 22	1101	299	17	1419
Schlesinger, Julius. (See Brower and Schlesinger.)						
Schley, Frederick, assignor to himself and F. Wesel, New York, N. Y. Printer's rule . . .	233,704	Oct. 26	1135	317	18	951
Schlimme, Henry, Wisconsin, Pa. Tuyere . . .	232,550	Sept. 21	814	225	18	674
Schlimp, Carl, Vienna, and R. Honzik, Schattau, Austria. Kiln for burning brick, pottery, &c .	235,907	Dec. 28	1055	291 292	18	1480
Schlossstein, John F., Fountain City, Wis. Washing-machine . . .	225,647	Mar. 16	782	229	17	612
Schlueter, Henry F., Cincinnati, Ohio. Embroidering attachment for sewing-machines . . .	226,206	Apr. 6	71	18	17	758
Schlueter, Henry F., Cincinnati, Ohio. Embroidering attachment for sewing-machines . . .	226,207	Apr. 6	72	18	17	758
Schlumberger, Robert, Medford, Mass. Galvanic battery . . .	227,448	May 11	418	121	17	1057
Schlüter, Henry, Stapleton, N. Y. Velocipede . . .	231,622	Aug. 24	1176	329	18	457
Schmalz, Michael, Bay City, Mich. Stump-extractor . . .	226,884	Apr. 27	887	246	17	926
Schmerber, Charles. (See Arrault and Schmerber.)						
Schmerber, Charles. (See Schmerber and Arrault.)						
Schmerber, Charles. (See Schmerber, Jules and C.)						
Schmerber, Jules. (See Arrault and Schmerber.)						
Schmerber, Jules and C., Paterson, N. J., and J. A. Arrault, New York, N. Y. Machine for grinding and mixing celluloid and other plastic compositions or substances . . .	229,477	June 29	1585	438	17	1496
Schmerber, Jules and C., Paterson, N. J. Treating pyroxyline in the manufacture of plastic compounds . . .	233,558	Oct. 19	950		18	910
Schmidt, Edmund, deceased, (J. H. Reitz, administrator,) Chemnitz, Saxony, Germany. Machine-beltting . . .	229,190	June 22	1241	341	17	1440
Schmidt, George A., New York, N. Y. Egg-beater . . .	233,287	Oct. 12	600	165	18	845
Schmidt, Herman E., Rapidan, Minn. Draft-equalizer . . .	233,557	Oct. 19	949	261	18	910
Schmidt, John C., Westfield, Mass. Whip-handle . . .	227,391	May 11	359	105	17	1047
Schmidt, John C., Westfield, Mass. Whip-handle . . .	227,392	May 11	359	105	17	1047
Schmieding, Charles W., St. Louis, Mo. Shot case or tray . . .	230,664	Aug. 3	84	24	18	260
Schmieding, Charles W., St. Louis, Mo., and C. G. Udell, Indianapolis, Ind. Rope-reel . . .	230,665	Aug. 3	85	24	18	260
Schmitt, Henry H., South Brooklyn, N. Y. Button . . .	227,306	May 4	246	71	17	1018
Schmitt, Michael, assignor to G. W. Rader & Co., New York, N. Y. Sewer-connection . . .	225,424	Mar. 9	522	150	17	556
Schmitt, Peter J., Chicago, assignor of three-eighths interest to G. Siegel, Carlinville, Ill. Safety attachment to elevators . . .	223,455	Jan. 13	304	81	17	67
Schneble, Martin, Dayton, Ohio, assignor, by mesne assignments, to United States Metallic Packing Company, Boston, Mass. Piston-packing. (Reissue) . . .	9,365	Aug. 31	1515	424	18	517
Schneider, Alois, San Francisco, Cal. Breech-loading fire-arm . . .	226,679	Apr. 20	640	178	17	874
Schneider, Alois, assignor of one-half interest to A. Rheude, San Francisco, Cal. Magazine fire-arm .	228,560	June 8	464	129 130	17	1312
Schneider, August P. (See Conghlin and Schneider.)						
Schneider, Jacob, New York, N. Y. Machine for bronzing wall-paper . . .	233,167	Oct. 12	458	126	18	820
Schneider, Paul, and H. Trenkamp, Cleveland, Ohio. Vapor-burner . . .	231,973	Sept. 7	127	32	18	544
Schneller, George O., Ansonia, Conn. Die for making eyelets . . .	234,690	Nov. 23	1094	294	18	1191
Schnitzlein, Theodor, Hamburg, Germany. Machine for cutting and finishing the teeth of combs .	235,461	Dec. 14	503	145	18	1373
Schnoter, Jacob C., New York, N. Y. Combined corset and shoulder-brace . . .	226,885	Apr. 27	888	247	17	926
Schock, Gustav, New York, N. Y. Barrel-washer. (Reissue) . . .	9,259	June 15	1006	272	17	1398
Schock, Gustav, New York, N. Y. Mash-strirrer . . .	228,222	June 1	73	21	17	1239
Schock, Henry, and G. Keller, Ulster, Switzerland. Spinning-machine . . .	223,865	Jan. 27	806	216	17	168
Schoen, Charles T., Philadelphia, Pa. Furniture-caster . . .	229,478	June 29	1586	439	17	1496
Schoenthaler, Daniel, Williamsville, assignor of one-half interest to H. D. Blakeslee, Buffalo, N. Y. Trace-buckle . . .	228,124	May 25	1210	345	17	1206
Schoettle, John. (See Blum and Schoettle.)						
Schofield, George W., United States Army. Revolving fire-arm . . .	227,449	May 11	419	122	17	1057
Schofield, Silas C., assignor to E. B. Winger and L. M. Devree, Freeport, Ill. Grinding-mill. (Reissue) . . .	9,109	Mar. 2	258	73	17	502
Schofield, Joseph J., Providence, R. I. Machine for plicating fabrics . . .	229,479	June 29	1587	439	17	1496
Schofield, Joseph J., Providence, R. I. Putting up fabrics . . .	229,759	July 6	286	80, 81	18	51
Schofield, Joseph J., Providence, R. I. Machine for printing linear measurements upon fabrics .	230,441	July 27	1134	319 320	18	207
Schofield, Socrates. (See Lindsley, Isaac, assignor.)						
Scholler, Henry W. (See Miller, Nicholas, assignor.)						
Schoonover, James S., Titusville, Pa. Compound crank . . .	235,026	Nov. 30	1506	405	18	1266
Schöpp, Eduard, Cologne, Germany, assignor to Marx & Son, New York, N. Y. Heddle for looms .	224,797	Feb. 24	985	279	17	410
Schossan, Charles, and R. D. Markham, Detroit, Mich. Broom . . .	231,500	Aug. 24	1039	291	18	436
Schrader, Theodore O. L., New York, N. Y. Oscillating ship's berth . . .	224,232	Feb. 3	293	85	17	252
Schrader, Theodore O. L., New York, N. Y. Self-leveling berth for vessels . . .	233,376	Oct. 19	736	201	18	875
Schram, Adelbert C., Flint, Mich. Combined colter and jointer . . .	232,370	Sept. 21	605	166	18	639
Schreiber, August. (See Reinhold and Schreiber.)						
Schrenkeisen, H., <i>et al.</i> (See Schrenkeisen, Martin, assignor.)						
Schrenkeisen, M., <i>et al.</i> (See Schrenkeisen, Martin, assignor.)						
Schrenkeisen, Martin, assignor to M. and H. Schrenkeisen, New York, N. Y. Musical attachment for chairs and sofas . . .	223,394	Jan. 6	208	55	17	38
Schreppel, Theodor, San Francisco, Cal. Mitring-machine . . .	223,819	Jan. 27	752	201	17	159
Schroder, Nicholas, Brooklyn, N. Y. Tray for packing eggs . . .	235,575	Dec. 14	640	182	18	1396

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Schroeder, Johann F., Brooklyn, N. Y. Guide for sewing-machines.....	229,760	July 6	290	81	18	51
Schu, Frank W., Baltimore, Md. Brick-machine.....	230,348	July 20	990	290	18	177
Schubert, Maurice, Dover, Ky. Tobacco and plant hiller.....	235,576	Dec. 14	642	182	18	1396
Schuchardt, Emil, New York, N. Y. Jacking-wheel for vehicles.....	235,302	Dec. 7	282	80	18	1328
Schuerch, Rudolph, Boston, Mass. Autograph-book.....	227,182	May 4	107	31	17	995
Schuhknecht, Adolph, Chelsea, Mass. Belt-fastening.....	229,278	June 29	1343	368	17	1462
Schulder, Rudolph, and E. H. Russell, West Jordan, Utah Ter. Ore-leacher.....	234,073	Nov. 2	299	83	18	1036
Schultheis, John F., New York, N. Y. Fire-escape.....	223,453	Jan. 13	299	79, 80	17	67
Schultz, Charles J., Allegheny, Pa. Botanical label.....	227,658	May 18	661	188	17	1108
Schultz, Ernst, Hamburg, Germany, assignor to himself and R. Wulff, Aarhus, Denmark. Burner and apparatus for burning petroleum.....	236,095	Dec. 28	1277	352	18	1516
Schultz, Gustav A. (See Schultz, Otto F., assignor.)						
Schultz, Michael, Cincinnati, Ohio. Steam-pump.....	235,905	Dec. 28	1053	291	18	1480
Schultz, Otto F., assignor to himself and G. A. Schultz, Louisville, Ky. Calendar-clock.....	231,732	Aug. 31	1317	371	18	486
Schulz, Adolph C., La Salle, Ill. Bottle-stopper.....	231,451	Aug. 24	988	278	18	428
Schulz, August. (See Schulz, Friedrich and A.)						
Schulz, Friedrich and A., Berlin, Prussia, Germany. Shoe-fastening.....	228,946	June 15	964	262	17	1391
Schureman, John N., St. Louis, Mo. Street-sprinkler.....	226,119	Mar. 30	1364	384	17	728
Schnrmann, Charles, Indianapolis, Ind. Device for converting reciprocating into rotary motion.....	226,359	Apr. 6	235	69	17	789
Schustok, Daniel, Chicago, Ill. Drive-chain.....	233,118	Oct. 12	403	111	18	811
Schuster, Julius. (See Schau, Phillip, assignor.)						
Schuyler, Isaac S., Brooklyn, N. Y., assignor to himself and I. S. Mettler, Jersey City, N. J. Machine for cutting screw-threads.....	230,825	Aug. 3	269	76, 77	18	291
Schnyder, Peter C. (See Brink, Peter H., assignor.)						
Schuyler, Spencer D. (See Maxim, Hiram S., assignor.)						
Schwaab, Adam, New York, N. Y. Head-rest for chairs.....	235,705	Dec. 21	799	225	18	1429
Schwalbach, Mathias, Milwaukee, Wis. Clock-escapement.....	232,073	Sept. 7	236	65	18	563
Schwan, Frederick, <i>et al.</i> (See McNulty, John A., assignor.)						
Schwarz, Frank, Cincinnati, Ohio. Apparatus for curing tobacco.....	231,363	Aug. 17	825	249	18	404
Schwartz, Charles, Brooklyn, N. Y., assignor to Althof, Bergmann & Co. Toy whistle.....	233,377	Oct. 19	738	202	18	875
Schwartz, William, St. Louis, Mo. Beer-cooler.....	227,450	May 11	420	122	17	1057
Schwartzkopf, Georg, Frankfurt-on-the-Main, Germany. Permanent way for railways.....	227,705	May 18	716	202	17	1116
Schweinfurth, Frank, <i>et al.</i> (See Wurzner, Joseph, assignor.)						
Schwerin, Morris, Newark, N. J. Handle for trunks, bags, &c.....	226,794	Apr. 20	757	211	17	894
Sciple, George E., Easton, Pa. Refrigerator.....	235,906	Dec. 28	1054	291	18	1480
Sciple, Harry M., assignor to himself and H. U. Kistner, Selin's Grove, Pa. Portable steam-engine.....	224,481	Feb. 10	581	167	17	318
Scotfield, Levi, Grand Haven, Mich. Mechanical movement.....	230,349	July 20	991	281	18	177
Scotfield, Levi, assignor to D. Cutler, Grand Haven, Mich., and J. B. Wait, Buffalo County, Nbr. Operating the seeding mechanism of corn-planters.....	230,666	Aug. 3	86	24	18	260
Scotfield, Lewis, Chattanooga, Tenn. Metal cross-tie for railways.....	230,826	Aug. 3	271	77	18	291
Scotfield, Merritt R., <i>et al.</i> (See Root, George W., assignor.)						
Scotfield, Sylvester, <i>et al.</i> (See Riter, John L., assignor.)						
Scott, Louis K., assignor to himself and R. M. Scottford, Kansas City, Mo. Hand-stamp.....	233,285	Oct. 12	598	165	18	845
Scott, Ryland M. (See Scottford, Louis K., assignor.)						
Scott, Alexander. (See Ellis, Scott, and Edmondson.)						
Scott, Benjamin P., Shelburn, Ind. Manufacture of boots and shoes.....	230,071	July 13	647	180	18	114
Scott, Burgess H., Clarksville, Tenn. Steaming apparatus.....	227,451	May 11	421	122	17	1057
Scott, Emmet H., La Porte, Ind. Grain-cradle.....	226,630	Apr. 20	588	164	17	866
Scott, Fletcher C., Fincastle, Va. Horse-collar.....	228,945	June 15	963	262	17	1391
Scott, Francis B., Buffalo, N. Y. Curtain-fixture.....	225,725	Mar. 23	887	259	17	639
Scott, George, assignor of one-half interest to J. Young, Montreal, Canada. Printer's quoin.....	232,551	Sept. 21	815	225	18	674
Scott, George J., Calcutta, India. Steam-boiler.....	228,783	June 15	781	213	17	1366
Scott, Jacob R., assignor to himself and A. H. Jackman, Nyack, N. Y. Machine for sewing boots and shoes.....	233,559	Oct. 19	950	261, 262	18	910
Scott, Jacob R., assignor to himself and A. H. Jackman, Nyack, N. Y. Sewing-machine.....	233,560	Oct. 19	952	262	18	911
Scott, Jacob R., assignor to himself and A. H. Jackman, Nyack, N. Y. Sewing-machine.....	233,561	Oct. 19	953	262	18	911
Scott, James A. (See Fort and Scott.)						
Scott, James C., <i>et al.</i> (See Needham and Hinton, assignors.)						
Scott, James L., New York, N. Y. Apparatus for transmitting power.....	223,956	Jan. 27	914	244	17	185
Scott, John W., Seattle, Wash. Ter. Automatic fan.....	234,207	Nov. 9	474	129	18	1074
Scott, King A., New Douglas, Ill. Gate.....	234,619	Nov. 16	992	264	18	1169
Scott, L. (See Bonbrak, Lew. S., assignor.)						
Scott, Merritt B., Hartford, Conn. Stud and clasp.....	234,337	Nov. 9	620	169	18	1098
Scott, Montezuma, G. W. and W. D. Sherwood, New Brighton, Pa. Earthenware saucepan.....	225,492	Mar. 16	608	176	17	581
Scott, Montezuma, New Brighton, Pa. Earthenware vessel.....	233,562	Oct. 19	954	262	18	911
Scott, Robert P., Newark, N. J. Apple-parer.....	232,371	Sept. 21	606	166	18	639
Scott, Robert S., <i>et al.</i> (See Mann, Frederick, assignor.)						
Scott, Robert W., Philadelphia, Pa. Stocking and the method of making.....	234,074	Nov. 2	300	83	18	1036
Scott, Robert W., Philadelphia, Pa. Stocking and the method of making.....	234,075	Nov. 2	301	83	18	1036
Scott, Samuel, Ashland, Miss. Horse-power.....	231,364	Aug. 17	886	249	18	404
Scott, Thomas H., A. G. De Pontec, and H. E. Wynman, Crown Point Centre, N. Y. Machine for cutting wood fiber for paper-pulp.....	234,893	Nov. 30	1343	362	18	1238
Scott, Uriah B., Portland, Oreg. Rudder.....	231,623	Aug. 24	1177	329	18	457
Scott, Walter, Chicago, Ill. Paper-damping machine.....	225,491	Mar. 16	606	176	17	581
Scott, Walter, Chicago, Ill. Sheet-delivery apparatus for printing-machines.....	228,782	June 15	778	213	17	1366
Scott, Walter, Chicago, Ill. Paper-folding machine.....	231,853	Aug. 31	1465	411, 412	18	509
Scott, Walter, Plainfield, N. J. Sheet-delivery apparatus for printing-machines.....	233,641	Oct. 26	1066	296, 297	18	939
Scott, Walter, Richmond, Quebec, Canada. Rotary engine.....	234,206	Nov. 9	472	128	18	1073
Scott, William, Malden, Mass. Car-coupling.....	235,027	Nov. 30	1506	405	18	1266
Scott, William M., <i>et al.</i> (See Needham and Hinton, assignors.)						
Scottron, Samuel R., New York, N. Y. Adjustable window-cornice.....	224,732	Feb. 17	874	249	17	378
Scovill Manufacturing Company. (See Camp, Wallace H., assignor.)						
Scovill Manufacturing Company. (See Shipley, Alfred J., assignor.)						
Scovill Manufacturing Company. (See Spruce, James, assignor.)						
Scovill Manufacturing Company. (See Thomas, George C., assignor.)						
Scranton, Alfred L., <i>et al.</i> (See Calkins, David N., assignor.)						
Scribner, Charles E., assignor to Western Electric Manufacturing Company, Chicago, Ill. Electric-annunciator drop.....	233,705	Oct. 26	1136	317	18	951
Scripture, Eliphalet S., Brooklyn, N. Y., assignor, by mesne assignments, to W. S. Reed, Leominster, Mass. Carriage-top. (Reissue).....	9,230	June 1	315	87	17	1277

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Scndder, Chester B., <i>et al.</i> (See French, William W., assignor.)						
Scndder, William H., St. Louis, Mo. Apparatus for pickling hams.	224,848	Feb. 24	1038	296	17	419
Scnll, William S., <i>et al.</i> (See Rushforth, William H., assignor.)						
Scully, William, Detroit, Mich. Stove-pipe damper.	231,241	Aug. 17	760	212	18	383
Scutt, Hiram B., Joliet, Ill. Warning-plate for barbed-wire fences.	224,482	Feb. 10	582	168	17	318
Scutt, Hiram B., Joliet, Ill. Barbed wire for fences.	232,372	Sept. 21	607	166	18	639
Scutt, William W., <i>et al.</i> (See Russell, John, assignor.)						
Seabury & Johnson. (See Johnson, Robert W., assignor.)						
Seagrave, George, assignor to A. Kelly, London, England. Car-lamp.	228,402	June 1	270	76	17	1270
Seaman, John H., Brooklyn, N. Y. Manufacture of tubes.	228,947	June 15	965	262	17	1391
Seaman, Robert, <i>et al.</i> (See Jones, John B., assignor.)						
Seamans, Irving M. (See Snow and Seamans.)						
Seamans, Irving M., assignor to Buffalo Dental Manufacturing Company, Buffalo, N. Y.						
Hydrocarbon-burner for crucible-furnaces.	228,281	June 1	149	42	17	1250
Searby, William M., San Francisco, Cal. Bed-pan.	234,076	Nov. 2	302	84	18	1036
Searl, Gideon, Franklinville, N. Y. Car-coupling instrument.	226,250	Apr. 6	116	32	17	766
Searl, Gideon, Franklinville, N. Y. Car-coupling tool.	228,400	June 1	268	75	17	1270
Searls, Anson. (See Underwood, John M., assignor.)						
Searls, Anson, Newark, N. J. Whip-socket. (Reissue.)	9,297	July 13	693	193	18	122
Searls, Anson, Newark, N. J. Whip-socket. (Reissue.)	9,424	Oct. 19	990	275	18	918
Sears, Chockley W., <i>et al.</i> (See Tweedle, Benjamin, assignor.)						
Sears, Henry C., Boston, Mass. Steam-vacuum dredger.	230,072	July 13	647	180	18	115
Sears, John N. (See Reynolds, Andrew J., assignor.)						
Sears, Millard F., Carlisle, Mich. Mechanical motor for churns, &c.	232,552	Sept. 21	816	225	18	674
Seaver, Augustus, Boston, Mass. Sole-edge-burnishing machine.	227,308	May 4	247	72	17	1018
Seaver, Carlton, Tracer, Iowa. Magazine-stove.	228,401	June 1	269	75	17	1270
Seaver, Luther T., Medford, Mass. Blind-awning.	228,784	June 15	782	214	17	1366
Sébillot, Amédée G., Paris, France, assignor to J. Kington and F. A. Kieffer, New York, } N. Y. Apparatus for the recovery of waste sulphuric acid.	230,501	July 27	1206	{ 339 340 }	18	219
Sebold, Georg, Durlach, Germany. Molding-machine.	233,032	Oct. 5	279	77, 78	18	784
Sebring, Joseph C., Mill Creek township, Wabauunsee county, Kans. Hat for wear in hot weather.	229,918	July 13	475	132	18	88
Sebring, Joseph C., Mill Creek township, Wabauunsee county, Kans. Grain-drill.	229,919	July 13	476	132	18	88
Sebring, Joseph C., Mill Creek township, Wabauunsee county, Kans. Vehicle-axle skein.	229,920	July 13	477	132	18	88
Sebring, Thompson C., assignor to Phipps, Lowell & Co., Milford, Mich. Side-bar wagon.	230,350	July 20	992	281	18	178
Seck, Heinrich, Frankfort-on-the-Main, Germany. Flour bolting and dressing machine.	226,360	Apr. 6	236	69	17	789
Secor, Jerome B., Bridgeport, Conn. Toy pistol.	226,361	Apr. 6	237	70	17	789
Secor, Jerome B., Bridgeport, Conn. Toy locomotive.	228,562	June 8	488	130	17	1313
Secor, Jerome B., Bridgeport, Conn. Toy .	232,075	Sept. 7	238	65	18	563
Secor, Jerome B., Bridgeport, Conn. Toy pistol. (Reissue.)	9,436	Oct. 26	1288	360	18	978
Secrest, Samnel, Byesville, Ohio. Turbino water-wheel.	235,102	Dec. 7	44	14	18	1288
Sedgwick, Isham, Richmond, Ind. Wire-twisting machine.	233,033	Oct. 5	281	78, 79	18	785
See, Horace, assignor of one-half interest to W. Cramp & Sons Ship and Engine Building Company, Philadelphia, Pa. Tube for surface-condensers.	231,501	Aug. 24	1040	292	18	436
See, James W., Hamilton, Ohio. Suppository-mold.	224,734	Feb. 17	876	250	17	379
See, James W., Hamilton, Ohio. Telephone-exchange apparatus.	235,056	Nov. 30	1540	{ 414 415 }	18	1272
See, James W., Hamilton, Ohio, assignor to F. W. Gordon, Pittsburg, Pa. Hydraulic elevator.	233,286	Oct. 12	599	165	18	845
See, James W., assignor of one-half to J. J. McMaken, Hamilton, Ohio. Electrical switch-board.	234,432	Nov. 16	756	203	18	1129
See, James W., and W. N. Gray, Hamilton, Ohio. Signal-box for telephone-lines.	229,279	June 29	1344	369	17	1462
Seeberger, Joseph, West Troy, N. Y. Piston-packing.	231,196	Aug. 17	706	199	18	375
Seed, Samuel, assignor of one-half interest to J. H. Sharret, Portsmouth, Va. Splicing masts and ship-timbers.	231,974	Sept. 7	128	32	18	544
Seebansen, Herman, assignor of one-half interest to G. R. G. Jones, Memphis, Tenn. Curtain-fixture.	234,495	Nov. 16	830	221	18	1141
Seeland, Frederick F., New York, N. Y., assignor to himself and J. Greives, Paterson, N. J. Apparatus for opening and loosening wool and other fibers.	233,288	Oct. 12	601	165	18	845
Seeley, Charles A. (See Holcombe, Alfred G., assignor.)						
Seeley, Charles A., New York, N. Y. Armature for magneto-electric machines.	229,191	June 22	1242	341	17	1440
Seeley, David W. (See Buckman, Alexander, assignor.)						
Seeley, Hurlbert H., Fenwick, Michigan. Fanning-mill.	231,624	Aug. 24	1178	329	18	457
Seely, Horace C., Philadelphia, Pa. Extension-carriage.	223,545	Jan. 13	412	110	17	85
Seely, Horace C., Philadelphia, Pa. Canopy-support for carriages.	234,208	Nov. 9	474	129	18	1074
Seely, Samuel F., Petersburg, Mich. Railway-tie.	235,706	Dec. 21	799	225	18	1429
Seely, William E., Anoka, Minn. Water-motor.	227,307	May 4	247	71	17	1018
Sees, Lonis. (See Buschlen and Sees.)						
Segnine, Crowell M., Richmond, N. Y. Coal shovel or scoop.	232,853	Oct. 5	69	20	18	750
Segur, Stephen B., Gold Hill, Nev. Hoisting device.	224,483	Feb. 10	583	168	17	319
Seibel, Phillip, St. Louis, Mo. Beer-cooler.	231,934	Sept. 7	62	16	18	535
Seidel, Charles F. W., New York, N. Y. Ironing-table.	225,648	Mar. 16	783	230	17	613
Seidensticker, F. Robert, assignor to Bradley & Hubbard Manufacturing Company, West Meriden, Conn. Extension lamp-fixture.	233,879	Nov. 2	59	16	18	997
Seiders, Renben, San Francisco, Cal. Horse-hitching device.	224,560	Feb. 17	679	194	17	345
Seips, Michael. (See Manning and Seips.)						
Seitz, Philip, assignor to himself and J. C. Holt, Baton Rouge, La. Sugar-cane cutter.	224,733	Feb. 17	874	249	17	378
Seivert, Lawrence, Big River, Wis. Wheel-barrow.	233,442	Oct. 19	815	225	18	887
Selby, H. C., <i>et al.</i> (See McCabe, Thomas W. R., assignor.)						
Selby, James, Peoria, Ill. Rotary corn-dropper.	224,613	Feb. 17	750	212	17	357
Selby, John W. (See Carrick, Thomas J., assignor.)						
Selden, Nels P., Belle Plaine, Iowa. Sash-holder.	223,250	Jan. 6	53	13	17	12
Selden, Samnel, and M. Griswold, Jr., Erie, Pa. Stove-pipe damper.	226,680	Apr. 20	641	178	17	874
Selden, Samuel, and M. Griswold, Jr., Erie, Pa. Waffle-iron.	229,280	June 29	1347	370	17	1463
Selkirk, William, Galveston, Tex. Candlestick.	226,556	Apr. 13	480	135	17	837
Sell, James T., Cambridgeport, assignor to B. F. Smith, Somerville, Mass. Sand-trap.	230,579	July 27	1287	362	18	223
Sellar, Robert. (See Barclay and Sellar.)						
Selleck, Oakley. (See Jankowitch, Jefrem, assignor.)						
Selleck, Robert M., assignor to Sargeant Manufacturing Company, Newark, N. J. Back-band loop for harness.	226,631	Apr. 20	589	165	17	866
Sellez, David N., Newburg, N. Y. Folding chair.	233,880	Nov. 2	60	16	18	997
Sellers, Coleman. (See Sellers, William and C.)						
Sellers, George H., Wilmington, Del. Machine for punching angle-bars and channel-bars.	230,068	Aug. 10	433	{ 124 125 }	18	324



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Sellers, John, Jr. (See Sellers, William and C., assignors.)						
Sellers, William. (See Bancroft, J. Sellers, assignor.)						
Sellers, William, and J. S. Bancroft, Philadelphia, Pa.; said Bancroft assignor to said Sellers. Injector for feeding boilers.	224,798	Feb. 24	986	279	17	411
Sellers, William, and J. S. Bancroft, Philadelphia, Pa.; said Bancroft assignor to said Sellers. Injector. (Reissue.)	9,407	Oct. 12	644	178	18	853
Sellers, William and C.; said C. Sellers assignor to J. Sellers, Jr., Philadelphia, Pa. Angle-shears.	235,908	Dec. 28	1057	292	18	1480
Sellers, William and C.; said C. Sellers assignor to J. Sellers, Jr., Philadelphia, Pa. Punch- ing-machine.	236,096	Dec. 28	1278	352 353	18	1516
Sellman, Henry, Hoboken, N. J., W. Martin and A. Balkam, Eastport, Me. Preserving fish.	223,682	Jan. 20	582	156	17	121
Semmes, Raphael T., Atlanta, Ga. Plow.	225,425	Mar. 9	523	150	17	556
Semrad, Anton V., Chicago, Ill. Mangle.	233,031	Oct. 5	278	77	18	784
Seng, Wendelin, Chicago, Ill. Extension-hinge for lounges.	231,935	Sept. 7	64	16	18	535
Seng, Wendelin, Chicago, Ill. Folding leg for extension-lounges.	231,936	Sept. 7	65	16	18	535
Senrick, Catharine. (See Senrick, Charles, assignor.)						
Senrick, Charles, assignor to C. Senrick, Albany, N. Y. Circumrotary door for cabinets, cases, &c.	230,153	July 20	762	212	18	141
Senter, George F., New York, N. Y. Composition from mineral wool for journal-bearings.	235,909	Dec. 28	1060	-----	18	1481
Senter, William F., Marshall, Mo. Marking and dropping attachment for planters.	225,426	Mar. 9	524	150	17	556
Senton, Benjamin C., Whitehall, N. Y. Vibrating propeller.	232,076	Sept. 7	240	66	18	563
Seoane, Pablo P., Havana, Cuba. Steering apparatus.	223,395	Jan. 6	209	55, 56	17	38
Sergeant, Henry C., et al. (See Moore, Charles, assignor.)						
Sergeant, Henry C., New York, N. Y. Air-compressor.	233,881	Nov. 2	61	17	18	997
Serrell, Edward W., Jr., Castleton, N. Y. Felt hat.	231,854	Aug. 31	1468	412	18	510
Sessions, John H. (See Taylor, Charles A., assignor.)						
Severance, Asahel J. (See Morse, Harris, assignor.)						
Severding, John H., Richmond, Ind. Eaves-trough hanger.	235,386	Dec. 14	404	113	18	1356
Severson, Abram, Auburn, N. Y. Wash-bench.	224,799	Feb. 24	987	279	17	411
Sevey, William S. E., New Orleans, La. Bale-tie.	228,223	June 1	74	22	17	1239
Sewall, Samuel, Jr., Tewksbury, Mass. Heddle for looms.	226,886	Apr. 27	888	247	17	926
Sewall, Samuel, Jr., Tewksbury, Mass. Heddle for looms. (Reissue.)	9,446	Nov. 2	349	96	18	1045
Sewall, Samuel, Jr., Tewksbury, Mass. Heddle-frame.	234,077	Nov. 2	303	84	18	1037
Seward, Samuel H., administrator. (See Gilman, Richard.)						
Seward & Son, M. (See Spare, George E., assignor.)						
Seward, William H., Albany, N. Y. Dredging apparatus.	226,557	Apr. 13	480	135	17	837
Seward, William H., Albany, N. Y. Dredging-bucket.	234,691	Nov. 23	1095	294	18	1191
Seward, William B., Bloomington, Ind. Plow-chill.	232,305	Sept. 14	512	143	18	618
Sewell, Albert H. (See Sewell, Delos, assignor.)						
Sewell, Delos, Niles, Mich., assignor of one-half interest to A. H. Sewell, Walton, N. Y. Removing flour and middlings from the products of crushed or ground wheat.	227,064	Apr. 27	1105	305	17	960
Sewell, Newton, Marysville, Cal. Relieving river-channels of sediment and forming levees.	235,967	Dec. 28	1136	314	18	1493
Sexton, James B., Pella, Iowa. Wagon-brake lever.	227,847	May 18	874	249	17	1141
Seyberlich, Albert, Feldberg, Mecklenburg, Germany. Depurator.	230,351	July 20	993	281	18	178
Seybold, Charles. (See Albert and Seybold.)						
Seybold, Frederick J., Chicago, Ill. Stylographic fountain-pen.	229,336	June 29	1422	389	17	1472
Seyfarth, Edward, Lanark, Ill. Ear-piercer.	230,073	July 13	649	181	18	115
Seyler, Carl, Cleveland, Ohio. Apparatus for cooling and purifying air.	231,937	Sept. 7	66	16	18	535
Seyller, George. (See Smith, Walton D., assignor.)						
Seymour, Arba M. (See Smith, Seymour, and Raynor.)						
Seymour, Charles, assignor to Defiance Machine Works, Defiance, Ohio. Hub-turning lathe.	230,074	July 13	650	181	18	115
Seymour, David H., and H. R. A. Boys, Barrie, Ontario, Canada; said Seymour assignor to said Boys. Oil-cup.	232,306	Sept. 14	513	143	18	618
Seymour, Frederick J., Wolcottville, assignor of one-half interest to J. B. Spencer, Waterbury, Conn., and J. A. Viall, Helena, Mont. Ter. Machine for washing ores.	227,589	May 11	575	164	17	1083
Seymour, Frederick J., Wolcottville, Conn. Machine for washing and concentrating ores.	228,125	May 25	1211	345	17	1206
Seymour, Henry A., Washington, D. C. Stool.	229,761	July 6	291	81	18	51
Seymour, James W., Batavia, N. Y. Fruit-drier.	228,561	June 8	486	130	17	1312
Seymour, Sabin & Co. (See Swain, David M., assignor.)						
Shabley, Charles, La Salle, Ill. Vent-valve for barrels.	223,396	Jan. 6	210	56	17	39
Shackelford, Joel M., Decatur, Ill. Check-rower attachment.	231,242	Aug. 17	761	213	18	323
Shackleton, James R., Brooklyn, assignor to E. B. Valentine & Co., New York, N. Y. Window-cornice.	225,877	Mar. 23	1061	303	17	668
Shackleton, James R., Brooklyn, N. Y. Mast or standard for vessels, &c.	228,126	May 25	1214	345	17	1206
Shadden, John S., et al. (See Ward, Michael, assignor.)						
Shade, Andrew G., and G. H. Moore, Verona, Pa. Paint-oil from petroleum acid residues.	230,898	Aug. 10	363	-----	18	313
Shado, George. (See Harris, William M., assignor.)						
Shafer, Charles T., Springfield, Ohio. Razor-strop.	235,577	Dec. 14	642	182	18	1396
Shafer, Eli, Sigourney, Iowa. Car-coupling.	223,766	Jan. 20	669	180	17	136
Shafer, Eli, Sigourney, Iowa. Thill-coupling.	226,251	Apr. 6	117	32	17	766
Shafer, Samuel D., Mexico, Mo. Wagon end-gate.	234,149	Nov. 9	396	107	18	1059
Shaffer, Henry E. (See Spencer, Charles F., assignor.)						
Shaffer, Joseph, assignor of one-half interest to J. A. Pritz, Dayton, Ohio. Loop-fastening for harness.	226,003	Mar. 30	1232	348	17	708
Shaffer, Joseph, assignor of one-half interest to J. A. Pritz, Dayton, Ohio. Manufacture of harness-loops.	226,004	Mar. 30	1233	348	17	708
Shalters, Moses R., and S. Ray, Alliance, Ohio, assignors, by mesne assignments, to W. H. Beebe, Chicago, Ill. Mowing-machine. (Reissue.)	9,381	Sept. 21	848	236	18	680
Shanck, Henry K., Arcanum, Ohio. Vibrating propeller.	224,233	Feb. 3	294	85	17	252
Shannon, James S. (See Smith and Shannon.)						
Shannon, James S., Downer's Grove, Ill. Bill-file.	223,546	Jan. 13	413	111	17	85
Shannon, James S., Chicago, Ill. Binder for sheet-music.	234,150	Nov. 9	396	103	18	1059
Shantz, Enos S., et al. (See Fleming, John, assignor.)						
Sharetts, William L., Baltimore, Md. Salvo.	229,014	June 22	1061	-----	17	1414
Sharp, Charles M., et al. (See Richardson, George M. and C. C., assignors.) (Reissue.)						
Sharp, James B., New York, N. Y. Suspenders.	235,028	Nov. 30	1507	405	18	1266
Sharp, James L. (See Lazcar and Sharp.) (Reissue.)						
Sharp, John C., Evansville, Wis. Stump-extractor.	234,728	Nov. 23	1133	305 306	18	1197
Sharp, Philip H., Harrisburg, Pa. Coal and ore breaker.	223,299	Jan. 6	115	29	17	21
Sharp, Thomas, Fort Yates, Dak. Ter. Window-sash.	234,078	Nov. 2	304	84	18	1037
Sharp, Thomas, Salem, Ohio. Cleaner and purifier for boilers.	234,729	Nov. 23	1136	306	18	1198
Sharpe, William A., Tama City, Iowa. Gate-hanger.	228,785	June 15	783	214	17	1366

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Sharret, John W. (See Seed, Samuel, assignor.)						
Shattuck, Burt E. (See Applegate and Shattuck.)						
Shattuck, Burt E., Cambridge, Mass. Reversible broiler.....	234,339	Nov. 9	622	169	18	1098
Shattuck, William H., Providence, R. I. Separable button.....	224,849	Feb. 24	1040	296	17	420
Shaw, A. B., Medford, Mass. Fastening for umbrellas, &c.....	231,452	Aug. 24	988	278	18	428
Shaw, A. B., Medford, Mass., assignor to H. L. Judd & Co., New York, N. Y. Curtain-fixture.....	232,654	Sept. 28	937	257	18	701
Shaw, Albert R. (See Shaw, William J. and A. R.)						
Shaw, Alton J. (See Wagg and Shaw.)						
Shaw, Benjamin F., Lowell, Mass. Gearing for changing the speed of rotating shafts.....	224,045	Feb. 3	81	25	17	217
Shaw, Benjamin F., Lowell, Mass. Knitting-machine.....	224,046	Feb. 3	82	25	17	217
Shaw, Benjamin F., Lowell, Mass. Circular-knitting machine.....	228,480	June 8	376	103 104 105 106 107	17	1296
Shaw, Burrell L. (See Buser and Shaw.)						
Shaw, Charles A. (See McGlinchy, John, assignor.)						
Shaw, Charles H. (See McDougall and Shaw.)						
Shaw, Charles H. (See Reynolds and Shaw.)						
Shaw, Charles H., Troy, assignor to himself and W. R. Cattelle, New York, N. Y. Brace-let-clasp.....	232,212	Sept. 14	402	111	18	598
Shaw, Charles H., assignor of two-thirds interest to C. R. Hicks and J. H. Reynolds, Troy, N. Y. Pocket.....	232,553	Sept. 21	816	225	18	674
Shaw, Charles H., assignor of one-half interest to J. H. Reynolds, Troy, N. Y. Faucet-bung for beer-kegs.....	232,653	Sept. 28	936	257	18	701
Shaw, Charles H., assignor to W. S. and G. Earl, Troy, and W. Wilson, New York, N. Y. Button-hole for cuffs, &c.....	234,620	Nov. 16	993	264	18	1169
Shaw, Charles L., Nora, Ill. Flood-gate.....	234,338	Nov. 9	621	169	18	1098
Shaw, David E., and D. Brigham, Chatsworth, Ill. Apparatus for watering stock.....	232,077	Sept. 7	240	66	18	563
Shaw, Elias J., assignor to M. C. Hirsch, Philadelphia, Pa. Measuring and registering tap for barrels.....	225,170	Mar. 2	213	60	17	493
Shaw, Elijah, Milwaukee, Wis. Sewing-machine.....	230,580	July 27	1288	363	18	233
Shaw, Frank, New York, N. Y. Flexible conducting-cord for telephones.....	232,908	Oct. 5	136	36	18	760
Shaw, Henry F., Boston, Mass. Steam fire-engine.....	224,735	Feb. 17	876	250	17	379
Shaw, Henry F., Boston, Mass. Harvesting-machine.....	228,786	June 15	784	214 215	17	1366
Shaw, Isom B., Smithfield, Ill. Horse-detacher.....	224,614	Feb. 17	751	213	17	357
Shaw, James T., assignor to J. Mundell & Co., Philadelphia, Pa. Boot and shoe.....	225,427	Mar. 9	525	151	17	557
Shaw, John, 2d. (See Bradford, Charles K., assignor.)						
Shaw, John, Franklin, N. H. Feather-renovator.....	223,298	Jan. 6	114	29	17	21
Shaw, Loring D., Boston, Mass. Relief valve.....	230,828	Aug. 3	272	77	18	291
Shaw, Noah T. (See Gregg, Shaw, and Felton.)						
Shaw, Sumner, Boston, Mass. Time-lock.....	233,443	Oct. 19	816	225	18	888
Shaw, Thomas, Philadelphia, Pa. Gunpowder punching-machine.....	223,767	Jan. 20	670	180	17	136
Shaw, Thomas, Philadelphia, Pa. Machine for registering measurements upon fabrics.....	235,968	Dec. 28	1137	314 315	18	1493
Shaw, William C., Philadelphia, Pa. Ore-washer.....	227,309	May 4	248	72	17	1019
Shaw, William J., Hebron, N. Y., and A. R. Shaw, Woodbridge, N. J.; said A. R. Shaw assignor to said William J. Shaw. Safety device for harvester-seats.....	232,655	Sept. 28	938	258	18	701
Shea, Mortimer, assignor to himself and T. F. Kendrick, Nashville, Tenn. Automatic safety-valve and seal-lock for gas-meters.....	224,736	Feb. 17	877	250	17	379
Sheafer & Co., W. H. (See Webbon, Ernest W., assignor.)						
Shear, Henry, and H. M. Toomey, Arcola, Ill. Well-casing.....	230,829	Aug. 3	273	78	18	291
Shear, L. C. (See Corser, Brackett G., assignor.)						
Shearer, Robert, New Albany, Ind. Piston-rod packing.....	226,558	Apr. 13	482	135	17	838
Shedd, Charles B. (See Lane, Frederick W., assignor.)						
Shedd, J. Herbert, Providence, assignor of one-half interest to S. A. Jenks, Pawtucket, R. I. Water-meter.....	231,939	Sept. 7	71	18, 19	18	536
Shedlock, Alfred, assignor to G. A. Goldsmith, New York, N. Y. Paper collar.....	231,453	Aug. 24	989	278	18	428
Shedlock, Alfred, assignor to F. W. Griffith and G. P. Byrne, New York, N. Y. Traversing inking-roller for printing-presses.....	234,433	Nov. 16	758	204	18	1129
Shedlock, William J. (See Goldsmith and Shedlock.)						
Sheets, Daniel, Union, Ohio. Gate.....	233,642	Oct. 26	1069	297	18	940
Sheffield & Co., George S. (See Aspinwall and Perry, assignors.) (Reissue.)						
Sheffield, Ezra, and G. R. Barnes, Boaz, Wis. Bee-hive.....	229,192	June 22	1244	341	17	1440
Shehan, Thomas, Cleveland, Ohio. Flexible core for casting.....	223,820	Jan. 27	753	201	17	160
Shehi, John N. (See Holton, George J., assignor.)						
Shelabarger, Benjamin F., Hannibal, Mo. Car-step.....	227,310	May 4	251	73	17	1019
Shelby, Christopher C., New York, N. Y. Clasp.....	226,559	Apr. 13	482	135	17	838
Shelby, Christopher C., New York, N. Y. Stocking-supporter.....	226,681	Apr. 20	642	179	17	874
Sheldon & Co., E. B. (See Sheldon, Eulius B., assignor.)						
Sheldon, Emmet T. (See Kellogg and Sheldon.)						
Sheldon, Eulius B., assignor to E. B. Sheldon & Co., New Haven, Conn. Electrotype-mold.....	228,224	June 1	75	22	17	1239
Sheldon, Frank L., Rahway, N. J. Folding fishing-basket.....	228,948	June 15	965	262	17	1391
Sheldon, Frederick M., et al. (See McGibeny, Sylvester H., assignor.)						
Sheldon, Luther C., Brooklyn, N. Y. Refrigerator.....	224,360	Feb. 10	449	129	17	297
Sheldon, Richard B., and J. V. Peacock, Shortsville, N. Y. Force-feed distributor for fertilizers.....	226,121	Mar. 30	1366	335	17	729
Sheldon, Richard B., and J. V. Peacock, Shortsville, N. Y. Force-feed device for fertilizer-distributors.....	227,998	May 25	1081	307	17	1184
Sheldon, Richard B., and J. V. Peacock, Shortsville, N. Y. Fertilizer-distributor.....	234,079	Nov. 2	305	84, 85	18	1037
Sheldon, Rufus H., Jr., Sterling, Ill. Separator for corn-shellers.....	224,850	Feb. 24	1040	296 297	17	420
Sheldon, Sylvester W., New York, N. Y. Barrel-swing.....	227,848	May 18	875	249	17	1141
Shellenberger, Samuel L., Denison City, Tex. Machine for mixing mortar.....	232,150	Sept. 14	321	91	18	585
Shelton, Clark R., New Haven, Conn. Sight for fire-arms.....	223,251	Jan. 6	54	13	17	12
Shelton, Clark R., New Haven, Conn. Rifle-barrel for shot-guns.....	230,442	July 27	1142	321	18	208
Shemelev, Alexander E., Jamesburg, N. J. Tent-frame.....	232,213	Sept. 14	403	112	18	593
Shentfield, Abraham, New York, N. Y. Suspender-end.....	227,183	May 4	108	32	17	996
Shenton, Francis, Slatington, Pa. Slate-dressing machine.....	226,795	Apr. 20	758	212	17	894
Shepard, Amos, Plantsville, Conn. Wrench.....	231,454	Aug. 24	990	279	18	428
Shepard, Charles G., and P. Adams, Jr., assignors to said Shepard and W. J. Shepard, Buffalo, N. Y. Fluting-machine.....	223,611	Jan. 13	491	132	17	98

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Shepard, Henry W., <i>et al.</i> (See Jones, John B., assignor.)						
Shepard, James A., Lexington, assignor to himself and E. A. G. Roulstone, Boston, Mass. Chemical fire-extinguisher.	224,109	Feb. 3	160	46	17	230
Shepard, Walter J. (See Shepard and Adams, assignors.)						
Shepardson, Edward D., Pittsfield, Ill. Feed-water regulator.	231,938	Sept. 7	67	17, 18	18	535
Shepherd, Charles C., Passaic, N. J. Toy.	230,502	July 27	1207	340	18	219
Shepherd, Henry S. (See Hendricks, Adam C., assignor.)						
Sheppard, Isaac A., Philadelphia, Pa. Damper for cooking-stoves.	231,625	Aug. 24	1178	330	18	457
Sheppard, John L., Charleston, S. C. Band-tightener for cotton-presses.	227,590	May 11	577	{ 165 166 }	{ 17 }	1083
Sherar, William W. (See Fickett, William S., assignor.)						
Sherer, George W., assignor to himself and D. A. K. Andrus, Rockford, Ill. Railway-switch.	231,197	Aug. 17	707	199	18	375
Sherer, Samuel B. (See Black, James M., assignor.)						
Sherer, Samuel B. (See Moore, Henry C., assignor.) (Reissue.)						
Sheridan, Edwin R., <i>et al.</i> (See Malm, Alexander, assignor.)						
Sheridan, Edwin R. and T. W., Brooklyn, N. Y. Machine for cutting paper. (Reissue.)	9,115	Mar. 9	562	{ 162 163 307 308 }	{ 17 }	563
Sheridan, Edwin R., Brooklyn, N. Y. Paper-cutting machine.	227,999	May 25	1082	{ 307 308 }	{ 17 }	1184
Sheridan, Theodore W., <i>et al.</i> (See Malm, Alexander, assignor.)						
Sheridan, Theodore W. (See Sheridan, Edwin R. and T. W.) (Reissue.)						
Sherley, Thomas H. (See Stitzel, Frederick, assignor.) (Reissue.)						
Sherman, Albert R., Natick, assignor to S. A. Jenks, Pawtucket, R. I. Draw-bridge gate.	226,796	Apr. 20	760	212	17	894
Sherman, Albert R., Natick, assignor to S. A. Jenks, Lincoln, R. I. Barrier for draw-bridges.	230,203	July 20	817	231	18	151
Sherman, Allen M., New York, N. Y. Recording pressure-gage.	228,479	June 8	375	{ 102 103 }	{ 17 }	1296
Sherman, Benjamin F., Ballston Spa, N. Y. Promoting combustion.	226,120	Mar. 30	1365	384	17	729
Sherman, Benjamin F., Ballston Spa, N. Y. Hydrocarbon-furnace.	229,762	July 6	293	82	18	51
Sherman, Clarence A., Plover, Wis. Circular-saw guide.	233,563	Oct. 13	954	263	18	911
Sherman, Elijah T., <i>et al.</i> (See Eichbaum, Henry, assignor.)						
Sherman, Frederic P., Kingston, Mass. Bag and twine holder.	235,103	Dec. 7	45	14	18	1289
Sherman, George B. (See Reeves, Horace E., assignor.)						
Sherman, Orin. (See Bishop, Thomas B., assignor.)						
Sherman, William R., Baltimore, Md. Peach-stoner.	228,949	June 15	966	263	17	1391
Sherriff, John, Dedham, Mass. Mail-box. (Reissue.)	9,253	June 15	996	270	17	1396
Sherrill, Henry W., Jersey City, N. J. Elevator.	223,307	Jan. 6	211	56	17	39
Sherrill, John H., Jasper, Tenn. Stump-puller.	231,243	Aug. 17	762	213	18	383
Sherry, John, Brooklyn, N. Y. Paddle-wheel.	225,493	Mar. 16	609	176	17	581
Sherry, John, Brooklyn, N. Y. Hollow air-tight brace for steam and other vessels.	230,721	Aug. 3	145	43	18	270
Sherwood, Daniel. (See Dudley and Sherwood.)						
Sherwood, George W. (See Scott and Sherwood.)						
Sherwood, William D. (See Scott and Sherwood.)						
Shields, David, Sing Sing, N. Y. Oil-stove.	223,398	Jan. 6	212	56	17	39
Shields, William, Philadelphia, Pa. Machine for punching nuts.	225,429	Mar. 9	527	151	17	557
Shields, William R., Hickman, Ky. Fence.	234,692	Nov. 23	1096	294	18	1191
Shiffer, John H., Chicago, Ill. Chromatic-printing machine.	225,951	Mar. 30	1171	{ 332 333 }	{ 17 }	699
Shillaber, Benjamin P., Chelsea, Mass. Portfolio-stand.	225,171	Mar. 2	214	60	17	493
Shimer, George J. (See Shimer, Samuel J. and G. J.)						
Shimer, George J., Milton, Pa. Cutter-head. (Reissue.)	9,403	Oct. 12	638	177	18	852
Shimer, Samuel J. and G. J., Milton, Pa. Car-axle lubricator.	224,047	Feb. 3	85	25	17	218
Shimmons, John H., Lawrence, Kans. Heating-stove.	229,193	June 22	1244	342	17	1440
Shine, Elwood H., Waynesburg, Ohio. Thill-coupling.	230,076	July 13	651	181	18	115
Shinkle, Peter, Covington, Ky. Commode.	225,649	Mar. 16	784	230	17	613
Shinn, John, assignor of two-thirds to W. N. Marcus and A. F. Fuller, Philadelphia, Pa. Machinery for breaking and scutching flax, hemp, &c.	233,949	Nov. 2	141	38	18	1010
Shinn, Thornton A., Remington, assignor of one-half interest to R. E. Breed, Pittsburg, Pa. Graduated glass or jar.	230,075	July 13	650	181	18	115
Shipperd, William C., assignor of one-half interest to W. D. Folsom, Cleveland, Ohio. Thill-coupling.	231,455	Aug. 24	991	279	18	428
Shipley, Alfred J., assignor to Scovill Manufacturing Company, Waterbury, Conn. Hair-pin.	225,428	Mar. 9	527	151	17	557
Shipley, Alfred J., assignor to Scovill Manufacturing Company, Waterbury, Conn. Button.	230,352	July 20	994	282	18	178
Shipley, Charles J., Toledo, Ohio. Lambrequin.	228,128	May 25	1216	346	17	1206
Shipp, Gustavus V., Social Circle, Ga. Washing-machine.	227,311	May 4	252	73	17	1019
Shippee, Charles H., Wickford, R. I. Car-coupling.	228,127	May 25	1214	345	17	1206
Shippee, Charles H., Wickford, R. I. Car-coupling.	229,763	July 6	294	82	18	51
Shirlaw, Andrew, Birmingham, England. Perforating-machine.	231,109	Aug. 10	589	167	18	350
Shirley, Frederick S. (See Ratcliff, Frederick, assignor.) (Reissue.)						
Shirley, Joseph J., Granbury, Tex. Spring-frame for freight-cars.	235,462	Dec. 14	505	145	18	1373
Shively, Jacob, Peru, Ind. Cider-press.	232,307	Sept. 14	514	143	18	618
Shiver, Elisha, Washington, D. C., assignor to I. H. Steever, Philadelphia, Pa. Shot-machine.	228,481	June 8	387	107	17	1298
Shiverick, Thomas. (See Willsey and Shiverick.)						
Shives, Dayton, O. (See Gunnels and Shives.)						
Shoaf, James M., West Elizabeth, Pa. Folding ironing-table.	227,659	May 18	662	188	17	1108
Shoemaker, Charles F., Cleveland, Ohio. Machine for shaping and fitting springs.	223,454	Jan. 13	301	80	17	67
Shoemaker, Elias H., assignor of one-half interest to J. D. Condon, Columbus, Ohio. Car-axle box.	226,797	Apr. 20	763	213	17	894
Shoemaker, William M., Philadelphia, Pa. Machine for filling paint-cans.	234,434	Nov. 16	759	204	18	1129
Shoeninger, Adolph. (See Unzicker, Otto, assignor.)						
Sholes, Frederick, assignor of two-thirds interest to W. C. Page, New York, and G. W. Carr, Brooklyn, N. Y. Type-writing machine.	225,078	Mar. 2	121	34, 35	17	477
Shone, Isaac, Wrexham, county of Denbigh, North Wales. Method of and apparatus for removing sewage.	235,910	Dec. 28	1061	{ 293 294 }	{ 18 }	1481
Shoots, James D., Horseheads, N. Y. Chain-pump bucket.	232,554	Sept. 21	817	226	18	674
Shorb, J. De Barth, <i>et al.</i> (See Morey, Roswell E., assignor.)						
Shorey, George L., Lynn, Mass. Automatic reversing device.	232,308	Sept. 14	515	144	18	618
Shorey, Levi W., Rochester, N. Y. Last.	224,234	Feb. 3	295	85	17	252
Short, Joseph P., Dodgeville, Wis. Mirror.	226,362	Apr. 6	238	70	17	789
Shondy, Daniel W., West Paw Paw, Ill. Thill-coupling.	233,119	Oct. 12	404	112	18	811
Shoup, Charles S., Franklin, Pa. Apparatus for increasing the production from oil-wells.	230,353	July 20	995	282	18	178
Shreffler, Samuel, Jr., Morris, Ill. Farm-gate.	223,456	Jan. 13	306	81	17	68

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Shreffler, Samuel, Jr., Morris, Ill. Door-hanger.....	232,555	Sept. 21	818	226	18	674
Shreiner, Jacob H., Harrisburg, Pa. Grain-drill.....	234,730	Nov. 23	1136	306	18	1198
Shrier, Elkan, San Francisco, Cal. Separable button.....	228,563	June 8	489	131	17	1313
Shrier, Morris, New York, N. Y. Pantaloon-pocket.....	234,959	Feb. 24	1152	329	17	438
Shrigley, J. Dill, Iowa City, Iowa. Combined seed-drill and rolling cutter.....	235,029	Nov. 30	1508	406	18	1266
Shriver, Calvin S., et al. (See Coddington, William C., assignor.)						
Shriver, Henry D., et al. (See Coddington, William C., assignor.)						
Shriver, Mark O., Baltimore, Md. Fence-post.....	233,564	Oct. 19	955	263	18	911
Shriver, Mark O., Baltimore, Md. Fence-post.....	233,565	Oct. 19	956	263	18	912
Shryock, George K., Johnstown, Pa. Dinner-bucket.....	229,480	June 29	1597	440	17	1497
Shryock, James W., El Moro, Colo. Cylinder-car.....	230,899	Aug. 10	364	105	18	313
Shuey, William H., Minneapolis, Minn. Railway-signal apparatus.....	229,921	July 13	478	132 133 134	18	88
Shuey, William H., Minneapolis, Minn. Automatic electric-circuit closer.....	235,817	Dec. 21	923	257 258	18	1451
Shugert, John R. (See Gandy and Shugert.)						
Shugert, John R. (See Wilson, Gandy, and Shugert.)						
Shulenbarger, Henry, Smithville, Ohio. Animal-trap.....	224,235	Feb. 3	296	86	17	252
Shuman, Charles, Rockford, Ill. Neck-yoke tip.....	235,911	Dec. 28	1064	294	18	1482
Shuman, Hiram, Buck, Pa. Stove-truck.....	231,855	Aug. 31	1469	412	18	510
Shuman, Thomas, assignor of one-half to G. A. Morse, Corning, Iowa. Barbed-wire fence.....	234,080	Nov. 2	307	85	18	1037
Shurtleff, William H., assignor of one-half interest to H. A. Church, Providence, R. I. Boot and shoe.....	224,361	Feb. 10	450	129	17	297
Shuttleworth, Charles J., Springfield, and O. M. Morse, Silver Creek, N. Y. Apparatus for bolting flour, &c.....	225,536	Mar. 16	659	193	17	590
Siberling, Perry J., Waterloo, Ind. Blackboard eraser.....	233,378	Oct. 19	739	202	18	875
Sibert, Calvin B., Gordonsville, Va. Horse-detacher.....	226,560	Apr. 13	423	136	17	838
Sibley, Freeman K., Waltham, Mass. Emery-cloth.....	230,202	July 20	816		18	150
Sibley, Henry H., Fredericksburg, Va. Projectile.....	225,650	Mar. 16	785	230	17	613
Sichel, Michel, Cape Girardeau, Mo. Fire-escape ladder.....	226,798	Apr. 20	764	213	17	895
Sidle & Co., J. W. (See Sidle, John W., assignor.)						
Sidle, John W., assignor to J. W. Sidle & Co., Philadelphia, Pa. Turn-table for mounting microscopic objects.....	235,030	Nov. 30	1509	406	18	1266
Sidwell, Aaron M., Girard, Kans. Transplanter.....	235,463	Dec. 14	506	145	18	1373
Sieber, Louis, et al. (See Rupp, John, assignor.)						
Siegel, George. (See Schmitt, Peter J., assignor.)						
Siemens, Charles W. (See Siemens, Frederick, assignor.) (Reissue.)						
Siemens, Charles W., Westminster, England. Glass-melting furnace.....	229,846	July 13	403	111	18	76
Siemens, Charles W., Queen Anne's Gate, Westminster, England. Regulating electric currents.....	229,922	July 13	484	135	18	89
Siemens, Charles W., Westminster, England. Glass-melting furnace.....	230,667	Aug. 3	88	24, 25	18	260
Siemens, Charles W., Westminster, England. Glass-melting furnace.....	230,668	Aug. 3	88	25, 26	18	261
Siemens, Charles W., Westminster, England. Electric lamp.....	233,289	Oct. 12	602	166	18	845
Siemens, Charles W., Westminster, England, and F. Siemens, Dresden, Germany. Furnace for melting, refining, and working out glass.....	233,566	Oct. 19	957	263 264	18	912
Siemens, Frederick. (See Siemens, Charles W. and F.)						
Siemens, Frederick, Dresden, Germany. Furnace for annealing and tempering glass.....	226,934	Apr. 27	945	262	17	935
Siemens, Frederick, Dresden, Germany, assignor to C. W. Siemens, Westminster, England. Manufacture of glass. (Reissue.).....	9,418	Oct. 19	984	272 273	18	916
Sievern, Gustav F., Brooklyn, N. Y. Clothes-line holder for windows.....	226,363	Apr. 6	238	70	17	789
Sigourney, John M., Watertown, N. Y. Car-axle.....	226,097	Dec. 28	1283	353	18	1517
Sigsbee, Charles D., Washington, D. C. Parallel ruler.....	224,962	Feb. 24	1153	330	17	438
Sikes, George, assignor of one-half interest to W. Sikes, North Evans, N. Y. Fruit-drier.....	228,787	June 15	765	215	17	1366
Sikes, William. (See Sikes, George, assignor.)						
Silber, Albert M., London, England. Multiple gas-burner.....	229,765	July 6	296	89	18	52
Silberman, Henry, Philadelphia, Pa. Fan.....	235,387	Dec. 14	404	113	18	1356
Silberstein, Morris, New York, N. Y. Suspender-end.....	231,856	Aug. 31	1470	413	18	510
Silcox, Daniel S., et al. (See Chapman, Samuel J., assignor.)						
Silliman, James B. (See Maxwell and Silliman.)						
Silsbee, Samuel, Cincinnati, Ohio. Steam-stove.....	225,240	Mar. 9	306	87	17	522
Silsbee, Samuel, Cincinnati, Ohio. Steam cooking apparatus.....	235,388	Dec. 14	405	114	18	1357
Silver Lake Company. (See Winchester, Gilman K., assignor.)						
Silver, Samuel N., assignor to himself and L. S. Chandler, Auburn, Me. Steam-engine.....	225,651	Mar. 16	786	230	17	613
Silvius, Abraham W., Galesburg, Ill. Scaffold.....	232,556	Sept. 21	818	226 227	18	674
Simex, Charles R., Snuderland, England. Steam steering mechanism.....	231,626	Aug. 24	1179	330	18	457
Simmons, Alonzo J., Pana, Ill. Gear mechanism and connecting-rod for converting rotary into reciprocating motion.....	233,810	Oct. 26	1256	350	18	972
Simmons, Alonzo J., Pana, Ill. Check-rower.....	234,061	Nov. 2	368	85	18	1037
Simmons, Charles B. (See Davis, Benjamin L., assignor.)						
Simmons, George H., Bennington, Vt. Manufacture of coffee-pots, &c.....	229,482	June 29	1598	440	17	1497
Simmons, James, East Long Branch, N. J., assignor of one-half to E. F. Hartley, New York, N. Y. Trunk-caster.....	234,496	Nov. 16	831	222	18	1141
Simmons, Marion H., Atesison, Kans. Self-locking clevis.....	228,129	May 25	1216	346	17	1207
Simmons, Robert F., Attleborough Falls, Mass. Manufacture of jewelry-chains.....	225,879	Mar. 23	1063	303	17	668
Simmons, Thomas R., Honma, La. Water and steam wheel.....	235,031	Nov. 30	1510	406	18	1266
Simon, Edward, Newark, N. J. Satchel, bag, and valise.....	229,056	June 22	1102	299	17	1420
Simon, Edward, Newark, N. J. Handle for satchels, bags, &c.....	229,481	June 29	1597	440	17	1497
Simon, John, Oakland, Cal. Door-alarm.....	231,502	Aug. 24	1041	292	18	436
Simon, John P., and J. Lex, Hartford, Wis. Extensible pattern for cutting the soles of boots and shoes.....	225,878	Mar. 23	1062	303	17	668
Simondi, Augustus L., Silver City, Idaho Ter. Preparation for coating ingot-molds.....	226,933	Apr. 27	944		17	935
Simonds, Charlie A., Buchanan, Mich. Combined shoe-holder and box-draw.....	225,652	Mar. 16	787	231	17	613
Simonds, Frank P., assignor to himself and D. H. L. Gleason, Natick, Mass. Apparatus for treecing boots.....	232,078	Sept. 7	241	66	18	564
Simonson, John H., East Norwich, N. Y. Baling-press.....	230,359	July 20	1002	254	18	179
Simpson, Charles A. E., assignor to himself and G. H. Heinisch, Portsmouth, Ohio. Vehicle-spring brace.....	232,079	Sept. 7	243	67	18	564
Simpson, G. F., et al. (See Smith, Walter, assignor.)						
Simpson, George S., assignor to J. S. and F. B. Tait, Decatur, Ill. Check-row attachment to corn-planters.....	232,151	Sept. 14	322	91	18	585



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Simpson, Hall, Miller & Co. (See Beach, Joseph B., assignor.)						
Simpson, Hall, Miller & Co. (See Herskell, Robert B., assignor.)						
Simpson, John, Cleveland, Ohio, assignor to Ewart Manufacturing Company, Chicago, Ill. Drive-chain.	224,737	Feb. 17	878	250	17	379
Simpson, John S., Nashville, Tenn. Animal-trap.	224,960	Feb. 24	1152	329	17	438
Simpson, Josiah M., assignor of one-half interest to A. Ault, Oshkosh, Wis. Rotary steam-engine.	223,547	Jan. 13	415	111	17	85
Simpson, J. S., et al. (See Smith, Walter, assignor.)						
Simpson, William. (See Clawson, Clement C., assignor.) (Reissue.)						
Sims, Benjamin L., Greenville, Ga. Plow attachment.	225,079	Mar. 2	123	35	17	478
Sims, Elbridge B., Antwerp, N. Y. Shelf-bracket clothes-rack.	224,961	Feb. 24	1153	330	17	438
Sims, James C. (See Brown, Hilry, assignor.)						
Sims, William, Stayton, Oreg. Water-wheel.	227,065	Apr. 27	1107	305	17	960
Sinclair, James A., Bridgeport, assignor of one-half interest to A. Lash, Martin's Ferry, Ohio. Pump.	226,005	Mar. 30	1234	349	17	708
Sinclair, James P., Elbridge, N. Y. Salt-evaporator.	225,080	Mar. 2	124	35	17	478
Singer, Charles G. (See Gillette, Mett G., assignor.)						
Singer, Charles G. (See Macy, Josiah H., assignor.)						
Singer, Joseph, Chicago, Ill. Key for tuning string-instruments.	224,642	Nov. 16	1021	273	18	1173
Singer, Joseph, Chicago, Ill. Key for musical string-instruments.	224,643	Nov. 16	1022	273	18	1173
Singer, Louis, New York, N. Y. Combined trunk, bed, &c.	225,032	Nov. 30	1510	406 407	18	1266
Singer Manufacturing Company. (See Pine, Leighton, assignor.)						
Singer Manufacturing Company of New Jersey. (See Diehl, Philip, assignor.)						
Singer Manufacturing Company of New Jersey. (See Miller and Diehl, assignors.)						
Singer, Robert R. (See Mann and Singer.)						
Sinnamon, John, Oswego, N. Y. Ball-and-socket coupling for vehicle-axes.	225,027	Mar. 2	53	15	17	465
Sinnamon, John, Oswego, N. Y. Steam-governor.	231,940	Sept. 7	73	19	18	536
Sinnamon, John, Oswego, N. Y. Machine for stretching and drying cloth.	232,854	Oct. 5	69	20	18	750
Sinton, David, Cincinnati, Ohio. Smoke-consuming furnace.	223,168	Oct. 12	460	126 127	18	821
Sipe, James B., and C. Rogers, Allegheny, Pa.; said Rogers assignor to said Sipe. Manufacture of paneled paper.	223,768	Jan. 20	671	180	17	136
Sipe, John T., Harrisonburg, Va. Nut-lock.	229,764	July 6	295	82	18	52
Sippy, John L., Venice, Ill. Ladder.	227,312	May 4	254	74	17	1019
Siprell, Darius W., assignor to Ohio Coal Mining Auger Company, Canal Dover, Ohio. Coal-mining machine.	225,494	Mar. 16	610	177	17	582
Siprell, Darius W., Canal Dover, Ohio, assignor of one-third interest to J. A. Hostetler. Manufacture of mining-augers.	232,767	Sept. 28	1065	292	18	723
Sird, Louis, Leicester, Vt. Sled-brake.	224,615	Feb. 17	752	213	17	357
Siruguey, Joseph, New Orleans, La. Lock.	235,818	Dec. 21	927	258	18	1451
Sitton, Benjamin J., Selma, Ala. Piston.	233,169	Oct. 12	461	127	18	821
Skañ, Carl J., Racine, Wis. Folding cot.	232,418	Sept. 21	664	183	18	648
Skeels, Wines R., Watertown, and W. A. Moore, Redman, N. Y. Torsion-spring-teeth harrow.	235,578	Dec. 14	643	183	18	1396
Skelley, Hester A., Decatur, Ill. Wash-basin.	225,880	Mar. 23	1064	304	17	668
Skene, Charles A., Westmoreland, Kans. Wagon-brake shoe.	234,435	Nov. 16	760	204	18	1130
Skerritt, Margaret E., Albany, N. Y. Car-step. (Reissue.)	9,263	June 22	1281	352	17	1446
Skidmore, Darwin L., et al. (See Furney, Elliott E., assignor.)						
Skidmore, James, J. M. Liston, and O. Skidmore, Charleston, Ill. Hame-tug.	226,561	Apr. 13	485	136	17	838
Skidmore, John, Chicago, Ill. Portable window-scaffold.	224,110	Feb. 3	163	46	17	230
Skidmore, Orestes. (See Skidmore, Liston, and Skidmore.)						
Skinner, Charles E., and E. Tymesen, Yonkers, N. Y. Loom for weaving tufted fabrics.	233,290	Oct. 12	603	166 167	18	846
Skinner, Charles E., and E. Tymesen, Yonkers, N. Y. Needle-loom.	233,291	Oct. 12	608	167 168	18	846
Skinner, Charles E., and J. Stewart, Yonkers, N. Y. Hand-truck.	233,292	Oct. 12	611	169	18	847
Skinner, Daniel M., Centre Sandwich, N. H. Clothes-pounder.	231,456	Aug. 24	992	279	18	428
Skinner, George, Cleveland, Ohio. Signal-lantern.	223,548	Jan. 13	415	111	17	86
Skinner, Henry J., assignor to L. W. Godfrey, Bradford, Pa. Ironing-machine.	233,706	Oct. 26	1136	317	18	951
Skinner, Holly. (See Myer and Skinner.)						
Skinner, Holly, Chicago, Ill. Automatic car-brake.	225,881	Mar. 23	1064	304	17	668
Skinner, Merrill R., assignor to himself and J. S. Rogers, Foster Brook, Pa. Swivel-hook for tightening and connecting ropes.	224,738	Feb. 17	879	251	17	379
Skinner, Samuel L., Independence, Iowa. Safety car-truck.	223,957	Jan. 27	915	244	17	185
Skinner, Samuel W., et al. (See Rivet, Louis, assignor.)						
Slack, William H. H. (See Sanders, George W., assignor.)						
Slade, Cordelia J., trustee. (See Slado, Howard, assignor.)						
Slade, Howard, assignor to C. J. Slade, trustee, Boston, Mass. Thill-coupling.	227,850	May 18	877	250	17	1141
Sladkey, Paul, Milwaukee, Wis. Millstone-driver.	235,033	Nov. 30	1514	407	18	1267
Slaight, Edgar. (See Lovake, Winfield S., assignor.)						
Slattery, Vincent D. P. J., New York, N. Y. Coal-cart.	225,726	Mar. 23	888	250	17	640
Slaughter, Joel C., assignor of one-half interest to J. W. Hines, Chestertown, Md. Force-feed device for grain-drills.	232,373	Sept. 21	608	167	18	639
Slayden, Stokeley W., et al. (See Mahan and Owen, assignors.)						
Slaymaker, Robert M. (See Humphreville, Henry, assignor.)						
Slayton, Nelson B., Alfred Centre, N. Y. Handle for combs.	230,443	July 27	1143	321	18	208
Slayton, Nelson B., Alfred Centre, N. Y. Pocket-knife.	234,731	Nov. 23	1138	306	18	1193
Sledge, Henry B., assignor of one-half to A. L. Stainback, Weldon, N. C. Animal-trap.	233,811	Oct. 26	1256	350	18	972
Slean, Frank B., et al. (See Clarkson, Edward H. N., assignor.) (Reissue.)						
Sloanaker, Albert B. (See Osborne, William D., assignor.)						
Sloane, William M., New York, N. Y., and R. M. Potter, Jersey City, N. J., assignors to W. Bell, New York, N. Y. Process and apparatus for manufacturing paraffine-wax.	223,549	Jan. 13	416	111	17	86
Sloane, William M., and W. Bell, New York, N. Y., assignors to said Bell. Refining paraffine-wax.	235,057	Nov. 30	1542	415	18	1272
Slocum, E. F. (See Arkins, Joseph, assignor.)						
Slonecker, Louis C., Stauffer's Station, Pa. Car-coupling.	234,082	Nov. 2	310	86	18	1038
Sloper, Byron, New York, N. Y., assignor of one-half to W. M. Jackson, Providence, R. I. Hydrocarbon-furnace.	236,098	Dec. 28	1285	353	18	1517
Slosson, Edwin C. (See Slosson, Eugene and E. C.)						
Slosson, Eugene and E. C., Verona, Ill. Cultivator.	224,111	Feb. 3	164	46	17	230
Slete, Daniel. (See Sneider, Charles, assignor.)						
Slotterbek Charles, Lakeport, Cal. Breach-loading fire-arm.	233,024	Oct. 5	284	79	18	785

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Sly, William W., Cleveland, Ohio. Vapor-stove top.....	229,057	June 22	1102	300	17	1420
Slye, Linnaons T., Upper Sandusky, Ohio. Watering stock.....	234,209	Nov. 9	476	129	18	1074
Small, Carey & Co. (See Small, Samuel, assignor.)						
Small, David E., York, Pa. Rub-iron for car-trucks.....	234,621	Nov. 16	994	264	18	1169
Small, Dexter M., Providence, R. I. Cooking apparatus.....	228,482	June 8	389	103	17	1293
Small, George A., Jeffersonville, Ind. Car-brake.....	234,622	Nov. 16	994	265	18	1169
Small, Herbert M., Baldwinsville, Mass. Machinery for making pads for carpets.....	224,053	Feb. 3	95	28	17	219
Small, Herbert M., assignor to S. E. Small, Baldwinsville, Mass. Manufacture of carpet-pads.....	231,733	Aug. 31	1319	371	18	486
Small, Isaac H., San Francisco, Cal. Elevator-governor.....	228,284	June 1	153	42, 43	17	1251
Small, James H., Buffalo, N. Y. Label.....	231,365	Aug. 17	887	250	18	404
Small, James H., Buffalo, N. Y. Label.....	231,366	Aug. 17	888	250	18	404
Small, Noah, Jonesborough, Ind. Windmill.....	227,591	May 11	581	166	17	1084
Small, Samuel, Clay township, Hamilton county, assignor to Small, Carey & Co., Carmel, Ind. Gate.....	235,464	Dec. 14	507	146	18	1374
Small, Samuel, Clay township, Hamilton county, Ind. Gate.....	236,099	Dec. 23	1287	354	18	1518
Small, Sarah E. (See Small, Herbert M., assignor.)						
Smalley Brothers & Co. (See Catlin, Abel D., assignor.)						
Smalley, John, Boundbrook, N. J. Anti-friction composition for bearings.....	227,849	May 18	876	249	17	1141
Smart, Don C., Cambridgeport, Mass. Step-ladder.....	226,935	Apr. 27	947	263	17	935
Smeeck, Henry B. (See Barr, Daniel W., assignor.)						
Smelsor, Henry, Arcadia, Ind. Churn.....	224,112	Feb. 3	165	47	17	231
Smethells, John F., Chicago, Ill. Fan-blower.....	223,300	Jan. 6	116	29	17	21
Smith, Aaron F., and T. Y. Davidson, Lynn, Mass. Elevator.....	229,558	July 6	62	17	18	18
Smith, Aaron F., et al. (See Pearce, George R., assignor.)						
Smith, Abram H., Wauseon, Ohio. Hay-elevator.....	234,083	Nov. 2	311	86	18	1038
Smith, Adelaide S. (See Smith, George D., assignor.)						
Smith, Albert A. H. (See Wygant, John H., assignor.)						
Smith, Albert M., Brooklyn, assignor to G. P. Farmer and J. Jenkins, New York, N. Y. Safety-pin.....	226,460	Apr. 13	364	104	17	819
Smith, Alfred E., New Bedford, Mass. Decoration of lamp-shades.....	230,581	July 27	1290	364	18	234
Smith, Alfred E., Bronxville, N. Y. Carriage-axle.....	232,560	Sept. 21	822	238	18	675
Smith, Allen C., and H. W. King, Canaan, N. Y. Combined funnel and measure.....	228,130	May 25	1217	346	17	1207
Smith, Allen C., and H. W. King, Canaan, N. Y. Tongue-support.....	235,465	Dec. 14	508	146	18	1374
Smith, Allen H., assignor of one-half interest to A. W. Jones, Burlington, Kans. Wind-mill.....	228,293	June 1	151	42	17	1251
Smith, Alpha M., Tampico, Ill. Knob attachment.....	226,123	Mar. 30	1368	385	17	729
Smith, Amos Y. (See File, George D., assignor.)						
Smith, Amroy B., Woodbine, Tex. Sunshade-holder.....	235,304	Dec. 7	284	80	18	1328
Smith, Amroy B., Gainesville, Tex. Spring-seat for vehicles.....	235,819	Dec. 21	928	259	18	1452
Smith & Anthony Stove Company. (See Anthony, Edgar W., assignor.)						
Smith & Anthony Stove Company. (See Turner, Henry, assignor.)						
Smith, August, et al. (See Bayliff and Harrod, assignors.) (Reissue.)						
Smith, Benjamin, Utica, N. Y. Electrical annunciator.....	230,969	Aug. 10	435	125	18	325
Smith, Benjamin F. (See Sell, James T., assignor.)						
Smith, Benjamin F., assignor of one-half interest to C. J. Lewis, New Orleans, La. Non-conducting covering.....	225,767	Mar. 23	939	272	17	647
Smith, Benjamin F., New Orleans, La. Furnace.....	228,405	June 1	272	76	17	1271
Smith, Benjamin H., Philadelphia, Pa. Meridian attachment to transit-instruments.....	232,309	Sept. 14	517	144	18	619
Smith, Brainerd W., Nineveh, Ind. Stalk-cutter.....	231,111	Aug. 10	591	168	18	350
Smith, Celia A., and J. Nall, Glenwood, Kans. Shirt-supporter.....	229,483	June 29	1599	440	17	1497
Smith, Charles, assignor to W. Whittaker, Burnley, county of Lancaster, England. Apparatus for supplying fuel to steam-boilers.....	224,237	Feb. 3	298	86	17	253
Smith, Charles A., et al. (See Sutton, Lyman W., Jr., assignor.)						
Smith, Charles A., Alliance, assignor to himself and T. C. Snyder, Waynesburg, Ohio. Car-roofing.....	225,172	Mar. 2	215	60	17	493
Smith, Charles A., assignor of one-half interest to M. D. Jones, Toledo, Ohio. Stock-car.....	226,936	Apr. 27	947	263	17	935
Smith, Charles A., assignor to himself and T. McFadden, Philadelphia, Pa. Rotary blower.....	232,559	Sept. 21	821	227	18	675
Smith, Charles D. (See Hall and Smith.)						
Smith, Charles D., New York, N. Y. Feed-water heater and steam-generator.....	225,537	Mar. 16	661	{ 193 194 }	{ 17	590
Smith, Charles H. (See McCaffrey, John, assignor.)						
Smith, Charles H., assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Latch.....	225,728	Mar. 23	889	259	17	640
Smith, Charles M., Seaton, Iowa, assignor to himself and O. B. Smith, Bond's Village, Mass. Churn.....	230,154	July 20	762	212	18	141
Smith, Charles O., Selma, Ala. Ash-pan for locomotives.....	230,799	Apr. 20	765	213	17	895
Smith, Charles O., Selma, Ala. Ash-pan for locomotives.....	226,800	Apr. 20	766	213	17	895
Smith, Chris. N., assignor of one-half to J. C. McBean, Chicago, Ill. Uniting electrotypes and stereotype plates.....	235,034	Nov. 30	1514	408	18	1267
Smith, Christian H. (See Smith, Lewis T. and C. H.)						
Smith, Clinton H. (See Clark, Cornelius, assignor.)						
Smith, Daniel. (See Atkinson, Mahlon B., assignor.)						
Smith, Daniel W., Tippecanoe City, Ohio. Hoisting-jack.....	225,882	Mar. 23	1065	304	17	668
Smith, David. (See Babbott and Smith.)						
Smith, David B., Altoona, Pa. Apparatus for kindling fires.....	228,131	May 25	1217	346	17	1207
Smith, David N., San Bernardino, Cal. Safe for provisions, &c.....	225,653	Mar. 16	788	231	17	613
Smith, David N., A. M. Seymour, and J. B. Raynor, Mazo Manie, Wis. Oil-can spout.....	228,132	May 25	1218	347	17	1207
Smith, Decsbrow M., assignor of one-half interest to A. P. Warfield, Springfield, Vt. Bolster for spinning-spindles.....	227,066	Apr. 27	1108	305	17	969
Smith, Dexter, Springfield, Mass. Fire-arm.....	230,582	July 27	1291	364	18	234
Smith, Earl A., Waterbury, Conn. Buckle-loop for suspender-ends.....	227,592	May 11	582	166	17	1085
Smith, Edgar M., assignor to Mitchell, Vance & Co., New York, N. Y. Chandelier.....	235,036	Nov. 30	1517	408	18	1268
Smith, Edmond C. (See Dancel and Smith.) (Reissue.)						
Smith, Edward A., Greeley, Colo. Earth-auger.....	230,830	Aug. 3	274	78	18	292
Smith, Edward C., and L. S. Winters, Lincoln, Nebr. Carpet-stretcher.....	228,689	June 8	625	169	17	1333
Smith, Edward C., Lincoln, Nebr. Base-burning stove.....	234,340	Nov. 9	622	170	18	1099
Smith, Edward S., Waterbury, Conn., assignor to Smith & Griggs Manufacturing Company. Clasp. (Reissue.).....	9,336	Aug. 3	304	86	18	298
Smith, Edwin G. (See Gurley, William F. E., assignor.)						
Smith, Edwin R., Richmond, Ind. Badgo.....	234,210	Nov. 9	477	130	18	1074
Smith & Egge Manufacturing Company. (See Egge, Frederick, assignor.)						
Smith, Eldridge J., assignor of one-half interest to J. C. Smith, Washington, D. C. Chair.....	225,431	Mar. 9	529	152	17	557
Smith, Eldridge J., Washington, D. C., assignor to W. K. W. Walden, Bedford, Mo. Clothes-wringer.....	231,112	Aug. 10	592	168	18	351

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Smith, Eldridge J., Washington, D. C. Hand-rest.....	235,581	Dec. 14	647	183	18	1397
Smith, Ephraim, Pittsburg, Pa. Mower.....	233,035	Oct. 5	285	80	18	785
Smith, Ernest H., Winchmore Hill, Great Britain. Lacing garments.....	232,420	Sept. 21	668	184	18	649
Smith, Eugene P., and M. Dunn, Detroit, Mich. Hose-coupling.....	235,580	Dec. 14	646	183	18	1397
Smith, F. G. (See Starratt, Burpce R., assignor.)						
Smith, Francis F., Aurora, Ill., assignor of one-half interest to J. W. Lockwood, Portage township, Ottawa county, Ohio. Coupling for sulky and other plows.....	230,902	Aug. 10	367	106	18	314
Smith, Francis F., Aurora, Ill. Sulky-plow.....	235,175	Dec. 7	136	39	18	1305
Smith, Fred. W., assignor to Purinton & Smith, Freeport, Ill. Door-spring.....	235,582	Dec. 14	648	184	18	1397
Smith, Frederick J., Chicago, Ill. Sulky-plow.....	225,538	Mar. 16	663	194	17	590
Smith, Frederick W., and J. S. Shannon, Chicago, Ill.; said Smith assignor to said Shannon. Temporary binder.....	232,374	Sept. 21	609	167	18	639
Smith, George, Stratford, Ontario, Canada. Car-brake.....	235,912	Dec. 28	1065	295	18	1482
Smith, George A. (See Smith, Lorenzo D., assignor.)						
Smith, George B. (See Smith, John B., assignor.)						
Smith, George D., Spartanburg, S. C. Harness-clasp.....	227,929	May 25	989	283	17	1170
Smith, George D., Spartanburg, S. C. Blender for bridles.....	228,564	June 8	489	131	17	1313
Smith, George D., assignor to A. S. Smith, Troy, N. Y. Torch.....	233,039	Oct. 5	291	82	18	786
Smith, George E., and R. M. Murdock, Watertown, Mass. Signal-lantern.....	225,883	Mar. 23	1066	304	17	668
Smith, George E., New York, assignor to Otis Brothers & Co., Yonkers, N. Y. Piston-packing.....	231,198	Aug. 17	709	199	18	375
Smith, George H., Webster, W. Va. Horse-rake.....	225,885	Mar. 23	1067	305	17	669
Smith, George H., and J. H. Beale, Boston, Mass. Carpet-lining.....	230,205	July 20	820	232	18	151
Smith, George L., Newark, N. J. Loop for bridles.....	230,831	Aug. 3	275	78	18	292
Smith, George R., Geddes, N. Y. Bale-tie.....	224,800	Feb. 24	988	280	17	411
Smith, George T., Bloomington, Ill. Dust-separator for flour-mills.....	223,655	Jan. 20	548	148	17	116
Smith, George T., Bloomington, Ill. Middlings-purifier.....	236,101	Dec. 28	1290	355	18	1518
Smith, George W., Jacksonville, Fla. Cinder-fender for car-windows.....	233,883	Nov. 2	68	18	18	998
Smith, George W., New Hartford, Conn. Telephone-transmitter.....	235,707	Dec. 21	800	225	18	1430
Smith, Gerritt. (See Taylor and Smith.)						
Smith, Granger W., Chili, N. Y. Paper-cutting machine.....	228,686	June 8	622	168	17	1333
Smith, Granger W., Chili, N. Y. Paper-cutting machine.....	231,857	Aug. 31	1471	413	18	510
Smith, Green, Coal Valley, W. Va. Window.....	235,035	Nov. 30	1515	408	18	1267
Smith & Griggs Manufacturing Company. (See Smith, Edward S., assignor.) (Reissue.)						
Smith, Hamilton E., New York, N. Y. Clothes-supporting apron for ironing-machines.....	228,565	June 8	490	131	17	1313
Smith, Hamilton E., New York, N. Y. Clothes-supporting apron for ironing-machines.....	230,900	Aug. 10	365	106	18	314
Smith, Hamilton E., Jersey City, N. J. Distilling apparatus.....	230,901	Aug. 10	366	106	18	314
Smith, Havilah M., New York, N. Y. Adjustable shelf-partition.....	233,042	Oct. 5	297	82	18	787
Smith, Henry, Jr., Baltimore, Md. Refrigerator-building.....	224,048	Feb. 3	86	26	17	218
Smith, Henry, New Haven, Conn. Machine for sewing covered nuts.....	224,963	Feb. 24	1154	330	17	438
Smith, Henry C., New York, N. Y. Car-wheel.....	231,503	Aug. 24	1042	292	18	436
Smith, Henry E., Houston, assignor of one-half interest to J. A. Lewis, Chickasaw County, Miss. Wheelbarrow.....	230,357	July 20	1000	283	18	179
Smith, Henry F., Philadelphia, Pa. Vehicle-wheel.....	234,817	Nov. 23	1246	335	18	1216
Smith, Hermann, Canterbury, England. Reed for musical instruments.....	233,038	Oct. 5	290	81	18	786
Smith, Hilliard B., assignor to himself and A. M. Borders, Stephenville, Tex. Wind-wheel.....	232,558	Sept. 21	820	227	18	675
Smith, Hiram, Honeoye Falls, N. Y. Balancing device for grinding-mills.....	224,226	Feb. 3	297	86	17	253
Smith, Hiram M., Richmond, Va. Thrashing-machine.....	232,080	Sept. 7	244	67	18	564
Smith, H. Julius, Mountain View, N. J. Electric fuse.....	225,173	Mar. 2	216	60	17	493
Smith, Horace A., Brooklyn, N. Y. Toy pistol.....	232,768	Sept. 28	1066	292	18	723
Smith, Irving C., New York, N. Y. Hydraulic engine.....	232,656	Sept. 28	939	258	18	701
Smith, Isaac, assignor to himself and S. Peck & Co., New Haven, Conn. Button.....	234,929	Nov. 30	1384	372	18	1245
Smith, Jacob A., assignor of one-half interest to C. F. Kesselmeire, Salem, Ohio. Slate-washer.....	223,612	Jan. 13	492	132	17	98
Smith, James. (See Woodward, James M., assignor.)						
Smith, James E., Wilkesbarre, Pa. Corn-planter.....	235,104	Dec. 7	46	14	18	1289
Smith, James F., and A. W. Mounsdon, Toledo, Ohio. Iron fence.....	223,400	Jan. 6	216	57	17	40
Smith, James G., Alliance, Ohio. Stove.....	233,567	Oct. 19	958	264 } 265 }	18	912
Smith, James R. (See Henry and Smith.)						
Smith, James S., Fort Wayne, Ind. Horse-detacher.....	232,082	Sept. 7	248	68	18	564
Smith, James W., Cleveland, Ohio. Spring-packing for steam-engines.....	228,225	June 1	75	22	17	1239
Smith, Jason, Rockland, Mass. Machine for trimming and channeling the soles of shoes.....	225,729	Mar. 23	891	260	17	640
Smith, J. Clement. (See Smith, Eldridge J., assignor.)						
Smith, J. H., et al. (See Hoster, Theodore G., assignor.)						
Smith, J. Henley, et al. (See Morey, Roswell E., assignor.)						
Smith, J. Heston, Three Tons, Pa., assignor of one-third interest to E. C. Stearns. Hollow auger. (Reissue).....	9,130	Mar. 30	1394	393	17	734
Smith, J. Heston, Three Tons, Pa., assignor of one-third interest to E. C. Stearns. Hollow auger. (Reissue).....	9,131	Mar. 30	1396	393	17	734
Smith, John, and J. Course, Carshalton, England. Machine for trimming beveled gears.....	228,687	June 8	623	168	17	1333
Smith, John, Baltimore, Md. Baling-press.....	233,812	Oct. 26	1257	351	18	972
Smith, John B., assignor of one-half interest to G. B. Smith, Dunmore, Pa. Locomotive.....	228,406	June 1	274	77	17	1271
Smith, John D. (See Dean, Cyrus S., assignor.)						
Smith, John E., Afton, Iowa. Steam-generator for cooking and laundry purposes.....	235,969	Dec. 28	1138	315	18	1494
Smith, John F. S., Chicago, Ill., assignor to D. F. Bremner. Cake-cutting machine. (Reissue).....	9,377	Sept. 14	536	148	18	622
Smith, John H., Bluffton, Ind. Shaft-bending machine.....	232,557	Sept. 21	820	227	18	675
Smith, John J. C., College Point, N. Y. Apparatus for bunching bristles.....	223,399	Jan. 6	214	57	17	39
Smith, John O., Savannah, Ga. Construction of canal-boats.....	232,081	Sept. 7	247	67	18	564
Smith, John S. (See Stevens and Smith.)						
Smith, John S., Jackson, Mich. Machine for cutting off bricks and tiles.....	224,616	Feb. 17	753	213	17	357
Smith, John S., Jackson, Mich. Brick.....	229,766	July 6	297	83	18	52
Smith, John S., assignor of one-half interest to A. H. Gibson, Jackson, Mich. Churn-power.....	225,727	Mar. 23	889	259	17	640
Smith, John S., London, England. Velocipede.....	230,669	Aug. 3	89	26	18	261
Smith, John T. (See Smith, William M. and J. T.)						
Smith, John W., Jersey City Heights, N. J. Ice-bunker.....	223,550	Jan. 13	418	112	17	86
Smith, Joseph A., Deep River, Conn. Manufacture of crochet-needles.....	228,404	June 1	272	76	17	1271
Smith, Joseph H., Marlborough, Tenn. Cultivator.....	229,194	June 22	1245	342	17	1440
Smith, Joseph N. (See Sutherland, Daniel A., assignor.)						
Smith, Joseph R., assignor to Waterbury Button Company, Waterbury, Conn. Hair-pin.....	225,430	Mar. 9	528	152	17	557
Smith, Julian K., Burrillville, R. I. Shuttle for looms.....	228,837	June 15	848	231	17	1375
Smith, Julius G., Lumberville, assignor to himself and C. L. Kneeland, Franklin, N. Y. Milk-cooler.....	233,037	Oct. 5	289	81	18	786

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Name, residence, and invention	No.	Date.	Monthly volume.		Official Gazette.	
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Smith, J. Walter, <i>et al.</i> (See Wright, Jacob D., assignor.)						
Smith, Kingsland. (See Osborne, Thomas B., assignor.)						
Smith, Kirk A. (See Woodard and Bennet, assignors.)						
Smith, Lafayette. (See Merriam, Charles R., assignor.)						
Smith, Leander, Cincinnati, Ohio. Mill for reducing, levigating, &c.	223,769	Jan. 20	673	181	17	136
Smith, Leander, Cincinnati, Ohio. Mill for grinding and reducing grain, &c.	232,419	Sept. 21	666	184	18	648
Smith, Lester K., Troy, Ohio. Stove lifter and carrier.	224,617	Feb. 17	755	214	17	357
Smith, Lewis, Rushford, assignor to C. S. Wilson, St. Paul, Minn. Barrel-machine.	225,303	Mar. 9	388	113	17	534
Smith, Lewis T. and C. H., Pleasant Unity, Pa. Harrow.	234,928	Nov. 30	1384	372	18	1245
Smith, Lionel J., Peshtigo, Wis. Cheese-cutter.	236,102	Dec. 28	1292	355	18	1519
Smith, Lorenzo D., assignor of one-half interest to G. A. Smith, Sandwich, Ill. Stock-car.	232,770	Sept. 28	1070	293	18	723
Smith, Mahlon F., Monticello, Ind. Device for preserving seed-corn.	229,015	June 22	1061	289	17	1414
Smith, Marion L. H., Wiscasset, Me. Illustrating books.	229,016	June 22	1061	289	17	1414
Smith, Martin V., McKeesport, Pa. Puddling and heating furnace.	230,583	July 27	1293	364	18	234
Smith, Martin V., McKeesport, Pa. Fire-shield.	233,120	Oct. 12	405	112	18	811
Smith, Michael E., and A. M. Glaze; said Glaze assignor to L. A. Glaze, Traer, Iowa. Rotary brick-machine.	232,769	Sept. 28	1067	292 293	18	723
Smith, Minard M., and J. Hassall, assignors to W. Hassall, New York, N. Y. Glove-fastener.	228,403	June 1	271	76	17	1270
Smith, Oren B. (See Smith, Charles M., assignor.)						
Smith, Orville T., Brooklyn, N. Y. Sleeve-button and stud.	227,184	May 4	109	32	17	996
Smith, Patrick A., Sturgis, Mich. Harness-pad machine.	229,017	June 22	1062	289	17	1414
Smith, Philester, assignor of one-half interest to G. F. Everson, Palmyra, N. Y. Wagon-jack.	232,855	Oct. 5	70	20	18	750
Smith, Richard, Sherbrooke, Quebec, Canada. Reciprocating propeller for vessels.	230,204	July 20	819	232	18	151
Smith, Robert D. O., Washington, D. C. Water-closet. (Reissue).	9,425	Oct. 19	992	275	18	918
Smith, Robert D. O., Washington, D. C. Water-closet. (Reissue).	9,426	Oct. 19	994	275	18	918
Smith, Robert D. O., Washington, D. C. Urinal. (Reissue).	9,427	Oct. 19	995	275	18	918
Smith, Robert P., assignor to himself, J. Whitall, C. Roberts, and W. H. Nicholson, Philadelphia, Pa., J. M. Mickle, Millville, N. J., and C. A. Tatum, New York, N. Y. Glass bottle and glass stopper.	225,654	Mar. 16	788	231	17	614
Smith, Robert P., assignor to himself, J. Whitall, C. Roberts, and W. H. Nicholson, Philadelphia, Pa., J. M. Mickle, Millville, N. J., and C. A. Tatum, New York, N. Y. Glass valve and chest.	227,067	Apr. 27	1109	305	17	960
Smith, Robert T. (See Smith, William A. and R. T.)						
Smith, Roland H. (See Markle and Smith.)						
Smith, Roswell T., Nashua, N. H. Machine for perforating sheets of paper for automatic musical instruments.	223,866	Jan. 27	808	217	17	168
Smith, Roswell T., Nashua, N. H. Paper-perforating machine. (Reissue).	9,429	Oct. 19	1001	277	18	920
Smith, Roswell T., Nashua, N. H. Paper-perforating machine.	233,882	Nov. 2	62	17, 18	18	997
Smith, Samuel R., and A. C. French, Cincinnati, Ohio. Drag-sawing machine.	229,767	July 6	297	83	18	52
Smith, Samuel S., assignor of one-fourth to F. Yuncck, Bryan, Ohio. Nut-lock.	235,708	Dec. 21	801	225	18	1430
Smith, Scott. (See Knight and Smith.) (Reissue.)						
Smith, Stephen N., Providence, R. I. Lacing-hook stock.	232,561	Sept. 21	822	228	18	676
Smith, Sylvester E., St. Louis, Mo. Bail-forming machine.	226,364	Apr. 6	239	70	17	790
Smith, Thomas. (See Garnett and Smith.)						
Smith, Thomas L., Ames, Iowa. Cylinder-cock.	231,110	Aug. 10	590	167	18	350
Smith, Thomas M., Baltimore, Md. Ball-trap.	224,049	Feb. 3	87	26	17	218
Smith, True J., and A. C. Younkin, Topeka, Kans. Fence.	235,709	Dec. 21	802	226	18	1430
Smith, Walter, assignor to J. S. and G. F. Simpson, Brooklyn, N. Y. Mold for casting air-chambers.	235,305	Dec. 7	285	80	18	1328
Smith, Walter F., Brooklyn, N. Y. Water-elevator.	228,688	June 8	624	168	17	1333
Smith, Walter P., Lostwithiel, England. Car-brake.	233,036	Oct. 5	287	80	18	786
Smith, Walton D., assignor of one-half interest to H. R. Kent, Prophetstown, Ill. Fire-proof shutter.	223,401	Jan. 6	216	57	17	40
Smith, Walton D., assignor of one-half to G. Seyller, Prophetstown, Ill. Skylight.	228,282	June 1	151	42	17	1251
Smith, Walton D., assignor of one-half to G. Seyller, Prophetstown, Ill. Amalgamator.	236,100	Dec. 28	1289	354	18	1518
Smith, Willard C., and B. D. Joslin, Kinderhook, Mich., assignors of one-third interest to R. and F. Lobdell. Soldering-iron.	228,000	May 25	1084	308	17	1185
Smith, Willard H., New York, N. Y. Ventilator for water-closets of railway-cars and other conveyances.	224,484	Feb. 10	583	168	17	319
Smith, Willard H., Brooklyn, N. Y. Vapor-burner. (Reissue).	9,227	June 1	307	86	17	1276
Smith, Willard H., Brooklyn, N. Y. Vapor-burner.	230,584	July 27	1295	365	18	235
Smith, Willard H., Brooklyn, N. Y. Side-wall ventilator.	235,303	Dec. 7	283	80	18	1328
Smith, Willard H., Brooklyn, N. Y. Reflector.	235,306	Dec. 7	287	81	18	1329
Smith, William, San Francisco, Cal. Tank and flushing connection for water-closets.	231,687	Aug. 31	1261	354	18	477
Smith, William A. and R. T., Waxahachie, Tex. Adjustable stool.	226,252	Apr. 6	117	33	17	767
Smith, William F., <i>et al.</i> (See Jerrold, John E., assignor.)						
Smith, William H., Chicago, Ill. An article for cattle-food.	233,886	Nov. 2	72	.....	18	999
Smith, William H., Chicago, Ill. Fuel.	233,884	Nov. 2	69	.....	18	998
Smith, William H., Chicago, Ill. Fuel.	233,887	Nov. 2	72	.....	18	999
Smith, William H., Chicago, Ill. Preparing waste vegetable products for use and transportation.	233,885	Nov. 2	70	.....	18	999
Smith, William M., <i>et al.</i> (See Sutton, Lyman W., Jr., assignor.)						
Smith, William M. and J. T., Barhamsville, Va. Washing-machine.	227,133	May 4	53	15	17	986
Smith, William M., Philadelphia, Pa., assignor, by mesne assignment, to C. E. L. Holmes, New York, N. Y. Machine for sewing button-holes, overseaming, &c.	225,199	Mar. 2	246	69	17	499
Smith, William M., Philadelphia, Pa., assignor, by mesne assignment, to C. E. L. Holmes, New York, N. Y. Sewing-machine.	235,579	Dec. 14	644	183	18	1397
Smith, William P., New Orleans, La. Machine for cleaning ditches.	225,198	Mar. 2	245	69	17	499
Smith, William P., New Orleans, La. Excavator.	230,358	July 20	1001	283 284	18	179
Smith, William W., Montrose, Pa. Felt dental disk.	225,884	Mar. 23	1067	305	17	669
Smith Woolen Machinery Company, James. (See Moulton, Hamilton L., assignor.)						
Smithers, Elias P., <i>et al.</i> (See Pfautz, Daniel M., assignor.)						
Smits, John H. (See Blodgett and Smits.)						
Smoot, William S., Ilion, N. Y. Magazine fire-arm.	230,670	Aug. 3	91	26	18	261
Smout, Peter S., Decorah, Iowa. Refrigerating-can.	231,367	Aug. 17	888	250	18	404
Smyers, Guillaume, Brussels, Belgium. Carbureting apparatus.	226,122	Mar. 30	1367	385	17	729
Smyser, Henry E., Philadelphia, Pa., assignor to Weikel & Smith Spice Company of Philadelphia. Package making and filling machine.	227,185	May 4	110	32 33 34	17	996



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Smyth, Charles A., assignor of part interest to D. Bedell, Hoopeston, Ill. Nut-lock.....	235,583	Dec. 14	650	184	18	1397
Smyth, David M., assignor to G. W. Root, Hartford, Conn. Sewing-machine.....	234,732	Nov. 23	1139	307	18	1198
Smyth, David M., assignor to Smyth Manufacturing Company, Hartford, Conn. Book-sewing.....	235,466	Dec. 14	509	147	18	1374
Smyth, James C., assignor to Book Sewing Machine Company, Boston, Mass. Machinery for stitching books with staples.....	223,252	Jan. 6	55	13	17	12
Smyth Manufacturing Company. (See Smyth, David M., assignor.)						
Snediker, William E., Trenton, N. J. Die.....	235,308	Dec. 7	288	81	18	1329
Sneider, Charles, assignor of one-half interest to D. Slote, New York, N. Y. Temporary binder.....	229,195	June 22	1247	{ 342 343 }	{ 17 17 }	{ 1441 1441 }
Sneider, Charles, assignor of one-half interest to D. Slote, New York, N. Y. Combined blotter, rule, and paper-cutter.....	229,768	July 6	299	83	18	52
Sneider, Charles, assignor of one-half to D. Slote, New York, N. Y. Lead and crayon holder.....	233,814	Oct. 26	1259	351	18	973
Sneider, Charles, assignor to W. C. Horn, Brooklyn, N. Y. Lead and crayon holder.....	234,084	Nov. 2	312	86	18	1038
Sneider, Charles, assignor of three-fourths to D. Slote and G. Freemaun, New York, N. Y. Combination pencil-holder.....	235,307	Dec. 7	287	81	18	1329
Sneider, Charles E., Baltimore, Md. Breech-loading fire-arm. (Reissue).....	9,166	Apr. 20	795	222	17	900
Sneider, Charles W., Baltimore, Md. Breech-loading fire-arm.....	227,135	May 4	55	15	17	957
Snell, Adolphus G., New Haven, Conn., assignor of one-half interest to G. F. Perkins, Holyoke, Mass. Telegraph-switch.....	227,851	May 18	878	250	17	1141
Snell, David A., Wamego, Kans. Apparatus for feeding cattle.....	233,888	Nov. 2	73	19	18	999
Snell, Wesley D., Rochester, N. Y. Churn-dasher.....	225,655	Mar. 16	789	231	17	614
Snell, William W., Rushford, Minn. Invalid-bed.....	229,559	July 6	63	17	18	18
Snow, George A., and F. L. Coe, New York, N. Y. Can-opener.....	233,813	Oct. 26	1258	351	18	972
Snow, George B., Buffalo, N. Y., assignor to Buffalo Dental Manufacturing Company. Dental plugger. (Reissue).....	9,248	June 8	698	191	17	1345
Snow, George B., assignor to Buffalo Dental Manufacturing Company, Buffalo, N. Y. Dental plugger.....	224,050	Feb. 3	88	26	17	218
Snow, George B., and I. M. Seamans, assignors to Buffalo Dental Manufacturing Company, Buffalo, N. Y. Burner for crucible-furnaces.....	227,852	May 18	878	250	17	1141
Snow, George K., Watertown, Mass. Elastic transfer printing-pad.....	228,567	June 8	492	132	17	1313
Snow, George K., Watertown, Mass. Collar and cuff.....	228,568	June 8	493	132	17	1313
Snow, Gilbert B., Sugar Grove, Ill. Shield or fender for corn-cultivators.....	227,134	May 4	54	15	17	956
Snow, Hervey D., Waterford, assignor to R. Johnston, Cohoes, N. Y. Governor for water-wheels, &c.....	228,566	June 8	491	131	17	1313
Snow, Samuel, et al. (See Harmon, Edward W., assignor.)						
Snow, Samuel, et al. (See Knubley, John W., assignor.)						
Snow, Samuel, et al. (See McCarty, Cremora F. and W., assignors.)						
Snow, Willard, Richland City, Wis. Spring-seat for vehicles.....	229,923	July 13	486	135	18	89
Snyder, Amos H., Quakertown, Pa. Apparatus for cooling and warming milk.....	224,485	Feb. 10	585	{ 168 169 }	{ 17 17 }	{ 319 319 }
Snyder, Antes, Johnstown, Pa. Bridge.....	227,068	Apr. 27	1110	306	17	960
Snyder, August, Allegheny, Pa. Steam-pump.....	235,037	Nov. 30	1517	{ 408 409 }	{ 18 18 }	{ 1268 1268 }
Snyder, Charles A., New Orleans, La. Machine for rolling and covering tobacco.....	225,241	Mar. 9	308	88	17	522
Snyder, Daniel, Clyde, Iowa. Hay rake and loader.....	235,467	Dec. 14	510	147	18	1374
Snyder, George, assignor of one-half interest to T. Sauder, Indianapolis, Ind. Bed-lounge.....	228,690	June 8	625	169	27	1333
Snyder, Henry F., Williamsport, Pa. Oil-tank car.....	223,867	Jan. 27	812	218	17	169
Snyder, Ira W., Varna, N. Y. Cake-griddle.....	225,656	Mar. 16	790	232	17	614
Snyder, Jacob J., Bryan, Ohio. Shoe.....	228,226	June 1	76	23	17	1239
Snyder, John H., Richmond, Va. Horseshoe-machine.....	231,113	Aug. 10	593	168	18	351
Snyder, Joseph W. (See Thompson, Charles S., assignor.)						
Snyder, Lanretta J., et al. (See Reed, John J., assignor.)						
Snyder, Nicholas. (See Levin, Samuel, assignor.)						
Snyder, Theodore L., Mont Clair, N. J. Button.....	229,196	June 22	1248	343	17	1441
Snyder, Thomas C. (See Smith, Charles A., assignor.)						
Snyder, Warren W., Martinsville, Ohio. Feather-renovator.....	235,710	Dec. 21	802	226	18	1430
Snyder, William, et al. (See Locke, Charles S., assignor.)						
Snyder, William K., Five Corners, N. Y. Pad for horse-collars.....	226,887	Apr. 27	890	247	17	926
Soare, William E., assignor of one-half interest to G. J. O'Doherty, Ottawa, Ontario, Canada. Apparatus for setting out slope-stakes.....	223,253	Jan. 6	56	13	17	12
Society for the Manufacture of Wood Pulp at Grellingen. (See Kaiser, Nikolaus, assignor.)						
Soden, Thomas, New York, N. Y. Bed-lounge.....	224,739	Feb. 17	880	251	17	379
Sofield, George A., Jersey City, N. J. Trunk-fastener.....	230,827	Aug. 3	272	77	18	291
Solderless Standing Seam Conductor Company. (See Irwin and Reber, assignors.) (Reissue.)						
Solderless Standing Seam Conductor Company. (See Reber, George K., assignor.)						
Solomon, Horace G. (See Wintrobe and Solomon.)						
Solt, Thomas, Rockport, Pa. Railway-switch.....	234,436	Nov. 16	760	204	18	1130
Solter, John, assignor to G. V. Keen and J. S. Hagerty, Baltimore, Md. Slop jar or bucket.....	226,562	Apr. 13	485	136	17	838
Solvay, Ernest, Brussels, Belgium. Manufacture of cement.....	231,858	Aug. 31	1472	413	18	510
Solvay, Ernest, Brussels, Belgium. Tubular steam-boiler.....	231,859	Aug. 31	1472	413	18	510
Solvay, Ernest, Brussels, Belgium. Manufacture of chloride of lime.....	231,860	Aug. 31	1473	413	18	510
Solvay, Ernest, Brussels, Belgium. Apparatus for the decomposition of chloride of calcium.....	235,820	Dec. 21	928	259	18	1452
Sombart, Charles M. (See Buss, Edward, assignor.)						
Somers, Daniel M. (See Davies and Somers.)						
Sommer, Wilhelm E. H., Bernburg, Germany. Confectioners' forms and their application.....	234,623	Nov. 16	997	265	18	1169
Sommerfeldt, Gustav, Teicha, near Rietschen, Prussia, Germany. Seed-drill.....	226,253	Apr. 6	118	33	17	767
Soper, Ephraim, Brooklyn, N. Y. Thill-coupling.....	231,457	Aug. 24	993	279	18	429
Soper, W. Horace, Baltimore, Md. Pipe-coupling.....	228,133	May 25	1220	347	17	1207
Sorenson, Soren P., and J. C. Stanton, Rio Vista, Cal. Chair-brace.....	231,245	Aug. 17	763	213	18	354
Sorg, Paul J., Middletown, Ohio. Tobacco-label.....	232,771	Sept. 28	1071	293	18	723
Sorg, Thomas, Jr., Lomira, Wis. Washing-machine.....	226,937	Apr. 27	948	263	17	935
Sornberger, Rodney, Stanbridge, Quebec, Canada. Plow-gage.....	233,815	Oct. 26	1260	351	18	973
Soule, Charles W., Boston, assignor of one-half interest to F. E. Kimball, Salem, Mass. Carbureter.....	227,853	May 18	880	250	17	1142
Soule, George W., Meridian, Miss. Cotton and hay press. (Reissue).....	9,193	May 4	298	87	17	1027
Soule, Joel H., Georgetown, N. Y. Drag-saw mill.....	232,310	Sept. 14	518	144	18	619
Soule, Leander, Taunton, Mass. Nail for boots and shoes.....	230,585	July 27	1296	365	18	235
Southern, Thomas, Wellington, England, assignor to H. A. Brognard, Philadelphia, Pa. Process of and furnace for reducing oxides to the metallic state.....	233,568	Oct. 19	959	265	18	912
Southwick, Andrew S. (See Vose and Southwick.)						
Sowash, John B., and G. V. Wright, Patterson, Iowa. Incrustation-preventive.....	230,903	Aug. 10	369	.....	18	314

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Sowers, Peter J., <i>et al.</i> (See Gehr, John, assignor.)						
Spainhower, John I. (See Headen and Spainhower.)						
Spalckhaver, William, Brooklyn, assignor to R. Hoe & Co., New York, N. Y. Paper- folding machine	223,457	Jan. 13	307	{ 81 82 83 26 27 28 }	{ 17 }	68
Spalckhaver, William, Brooklyn, assignor to R. Hoe & Co., New York, N. Y. Paper- folding machine	224,051	Feb. 3	90	{ 26 27 28 }	{ 17 }	218
Spalding, Henry C., Bloomfield, N. J. Lighting cities by electricity	235,913	Dec. 28	1066	295	18	1482
Spalding, Henry C., Boston, Mass. Lighting towns by electricity	235,914	Dec. 28	1067	296	18	1482
Spangler, Jacob W., York, Pa. Fertilizer-distributor	233,040	Oct. 5	294	82	18	786
Spare, George E., assignor to M. Seward & Son, New Haven, Conn. Carriage-seat iron for shifting-rails	228,483	June 8	389	108	17	1298
Sparham, Terence, Brockville, Ontario, Canada. Roofing-cement	229,924	July 13	487	-----	18	89
Sparham, Terence, Brockville, Ontario, Canada. Roofing composition	229,925	July 13	488	-----	18	89
Sparks, Charles H. and W. E., Burlington, Iowa. Car-brake	224,362	Feb. 10	451	{ 129 130 }	{ 17 }	297
Sparks, Walter E. (See Sparks, Charles H. and W. E.)						
Sparks, William E., assignor to P. & F. Corbin, New Britain, Conn. Sliding-door-lock handle	226,682	Apr. 20	644	179	17	875
Sparks, William E., assignor to P. & F. Corbin, New Britain, Conn. Latch	228,569	June 8	494	132	17	1313
Sparks, William E., assignor to P. & F. Corbin, New Britain, Conn. Latch	231,504	Aug. 24	1042	292	18	436
Sparrow, Andrew J., Potsdam, N. Y., assignor, by mesne assignments, to J. A. Miller, Jr., Providence, R. I. Fire-extinguisher. (Reissue.)	9,397	Oct. 5	320	88	18	791
Spaulding & Brothers, N. W. (See Spaulding, Dennis, assignor.)						
Spaulding, Dennis, assignor to N. W. Spaulding & Brothers, Chicago, Ill. Manufacture of saw-teeth blanks	226,426	Apr. 13	323	93	17	813
Spaulding, George J. (See Gage, Eggleston, and Spaulding.)						
Spaulding, Henry C. (See Braunlich, August H., assignor.)						
Spaulding, Nathan W. (See Corey, John G., assignor.)						
Speakman, Thomas S., Philadelphia, Pa. Tidal-motor	235,105	Dec. 7	47	15	18	1289
Spear, Jacob W., London, England. Candle-holder	227,660	May 18	663	188	17	1108
Spear, James. (See Froh, George, assignor.) (Reissue.)						
Spear, Warren, Aurora, Ill. Machine for picking and husking corn	235,038	Nov. 30	1518	{ 409 410 }	{ 18 }	1268
Speed, Austin P. (See Payne, James W., assignor.)						
Speer, Garrett F., Philadelphia, Pa. Paper vessel	235,584	Dec. 14	651	184	18	1397
Speer, Garrett F., Philadelphia, Pa. Paper-pulp mold	235,585	Dec. 14	651	184	18	1397
Speer, Garrett F., Philadelphia, Pa. Paper-drying machine	235,586	Dec. 14	652	185	18	1397
Speer, Hiram, Blue Springs, Nebr. Revolving stalk-rake	225,952	Mar. 30	1173	333	17	699
Speer & Sons, Alexander. (See Wansbrough, Edmund, assignor.)						
Speer, William W. (See Wansbrough and Speer.)						
Speers, Solomon P., Baltimore County, Md. Ore-washer	229,281	June 29	1348	370	17	1463
Speicher, Sam. S., Urbana, Ind. Gate	231,244	Aug. 17	762	213	18	383
Spelman, Irwin H., Cortland, Ohio. Sap-spout	234,437	Nov. 16	761	205	18	1130
Spence, Sidney D., St. Bernard, Ohio. Appliance for horses' hoofs	230,155	July 20	763	212	18	142
Spencer, Alva C., Syracuse, N. Y. Overalls	235,587	Dec. 14	653	185	18	1398
Spencer, Archelaus E., Chicago, Ill. Faucet	228,950	June 15	967	263	17	1392
Spencer, Charles F., assignor to H. E. Shaffer, Rochester, N. Y. Lamp	223,254	Jan. 6	57	14	17	12
Spencer, Charles F., Rochester, N. Y. Lamp	231,688	Aug. 31	1262	355	18	477
Spencer, Christopher M., assignor to Hartford Machine Screw Company, Hartford, Conn. Screw-cutting machine	223,255	Jan. 6	57	14	17	12
Spencer, Christopher M., assignor to Hartford Machine Screw Company, Hartford, Conn. Machine for making metal screws. (Reissue.)	9,290	July 13	685	192	18	120
Spencer, Edward H., Jr. (See Cooke and Spencer.)						
Spencer, Henry F., Ripon, Wis., and H. C. Eggleston, Hillsdale, Mich. Latch	233,711	Oct. 26	1146	319	18	952
Spencer, Henry T., assignor to W. H. K. Abbott, Waterville, Me. Stop-motion for rail- way-heads	228,407	June 1	274	78	17	1271
Spencer, Jonathan R., Avilla, Mo. Broom-head	226,124	Mar. 30	1369	386	17	729
Spencer, Joseph B., <i>et al.</i> (See Seymour, Frederick J., assignor.)						
Spencer, Lewis W., assignor to T. D. Harrison, New York, N. Y. Machine for pressing and cutting plug-tobacco	225,174	Mar. 2	217	61	17	493
Spencer, Lewis W., assignor to himself and T. D. Harrison, New York, N. Y. Line-throw- ing gun	229,058	June 22	1102	300	17	1420
Spencer, Robert, Columbus, Ohio. Refrigerator	229,059	June 22	1104	300	17	1420
Spencer, Robert, Brooklyn, N. Y. Pyrometer	235,389	Dec. 14	407	114	18	1357
Spencer, Samuel. (See Giltman and Spencer.)						
Spencer, William A., Lynchburg, Tenn. Washing-machine	224,238	Feb. 3	299	87	17	253
Spencer, William H., assignor to R. M. Bell, Brooklyn, N. Y. Dry-copying process	234,927	Nov. 30	1382	-----	18	1245
Spicer, William A., assignor to Spicers & Peckham, Providence, R. I. Check-draft damper for stoves and ranges	230,832	Aug. 3	275	78	18	292
Spicers & Peckham. (See Spicer, William A., assignor.)						
Spielman, William, Albany, assignor of one-half to J. A. Pratt, West Albany, N. Y. Rail- way-switch	234,341	Nov. 9	623	170	18	1099
Spier, Charles, assignor to Joseph Peters Furniture Company, St. Louis, Mo. Sectional kitchen-safe	232,772	Sept. 28	1072	293	18	724
Spies, Edward, Washington, D. C. Pantaloon and other garments. (Reissue.)	9,038	Jan. 6	272	71	17	49
Spiller, Charles E., assignor of one-half interest to T. Gogin, Boston, Mass. Steam-pump regulator	229,644	July 6	149	42	18	31
Spiller, Oscar M., Hoboken, N. J., assignor, by mesne assignments, to H. C. Goodell. Non- conducting filling for dinner-pails, safes, and other receptacles. (Reissue.)	9,483	Nov. 30	1551	416	18	1273
Spilman, Benjamin F., Harrodsburg, Ky. Photographic plate-holder	228,134	May 25	1221	347	17	1207
Spindler, John C., and F. L. Fairchild, assignors to C. Cooper, G. Rogers, F. L. Fairchild, and C. G. Cooper, Mount Vernon, Ohio. Traction-engine	232,375	Sept. 21	611	{ 167 168 }	{ 18 }	640
Spink, Eugene A., <i>et al.</i> (See Baxley, Levi L., assignor.)						
Spirit Purifying and Aging Company. (See Wood, Francis L., assignor.)						
Splan, James F. (See O'Brien and Splan.)						
Spoerl, Christian S. E. and J. G., Brooklyn, N. Y., and G. Curtis, Jersey City, N. J. Sofa- bedstead	228,408	June 1	276	78	17	1271
Spoerl, John G. (See Spoerl, Christian S. E. and J. G.)						
Spofford, Charles, New York, N. Y. Grain-drier	231,861	Aug. 31	1474	413	18	510
Spofford, Joseph L. (See Hayden, Joel B., assignor.)						
Spofford, Nelson, Haverhill, Mass. Bit-brace	225,768	Mar. 23	940	272	17	647
Spofford, Nelson, Haverhill, Mass. Bit-brace	234,624	Nov. 16	998	265	18	1179

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Spooner, George D., Rutland, Vt. Canceling-stamp.....	229,282	June 29	1349	370	17	1463
Sprague, Arthur P., Kalamazoo, Mich. Spring harrow-tooth.....	227,593	May 11	583	167	17	1085
Sprague, Daniel A., Poland, and S. Perry, Newport, N. Y. Wagon-lock.....	229,560	July 6	63	17, 18	18	18
Sprague, Daniel A., Poland, N. Y. Side-spring vehicle.....	233,293	Oct. 12	612	169	18	847
Sprague, Leonard A., Brooklyn, N. Y. Machine for making buckle-levers.....	228,136	May 25	1223	348	17	1208
Sprague, Leonard A., Brooklyn, N. Y. Buckle-lever.....	230,156	July 20	764	213	18	142
Sprague, Leonard A., Brooklyn, N. Y. Machine for making buckle-levers.....	231,199	Aug. 17	710	{ 199 200 }	18	375
Sprague, Pearley J., assignor to himself and J. S. King, Terre Haute, Ind. Flour and meal sifter.....	232,562	Sept. 21	823	228	18	676
Sprague, Silas S., St. Louis, assignor of one-half interest to W. W. Corey, St. Louis County, Mo. Piston-packing.....	230,206	July 20	821	232	18	151
Sprague, Solon S. (See Prouty and Sprague.)						
Sprague, William H., Norwalk, Ohio. Pen-holder.....	235,656	Dec. 21	737	210	18	1419
Spray, Charles H., and E. M. Bush, Seymour, Ind. Stove-shelf.....	226,125	Mar. 30	1370	386	17	729
Spring, Charles, et al. (See Steel, Robert, assignor.)						
Spring, Charles, assignor to Spring, Robinson & Co., Hyde Park, Mass. Paper-cutting machine.....	233,121	Oct. 12	406	112	18	811
Spring, Robinson & Co. (See Spring, Charles, assignor.)						
Spring, W. A., et al. (See Lindsay, James A., assignor.)						
Springer, Frederick J., Edwardsville, Ill. Vehicle-spring.....	227,661	May 18	664	{ 188 189 }	17	1108
Springer, Henry, Vicksburg, Mich. Spring-tooth cultivator.....	224,487	Feb. 10	587	169	17	319
Springer, Henry, Vicksburg, Mich. Spring cultivator-tooth.....	231,368	Aug. 17	889	250	18	404
Springer, Henry, Vicksburg, Mich. Spring-tooth cultivator with harrow attachment.....	232,083	Sept. 7	249	68	18	565
Springer, Joseph M., Logansport, Ind. Bolting-reel.....	228,409	June 1	277	78	17	1271
Springer, Joseph M., assignor of one-third interest to J. Hankey, Logansport, Ind. Mold-er's flask.....	232,084	Sept. 7	250	68	18	565
Springer, William, et al. (See Stevens, Franklin B., assignor.)						
Sprouse, William T., Blue Rapids, Kans. Tire-tightener.....	228,135	May 25	1223	348	17	1208
Sprout, Erastus T., Pictre Rocks, Pa. Wire fence.....	230,077	July 13	652	182	18	115
Sprower, Frederick, Brooklyn, N. Y. Brush. (Reissue.).....	9,160	Apr. 13	527	146	17	846
Sprowles, John W., Frankford, Pa. Wood-lined paper box.....	224,052	Feb. 3	94	28	17	219
Spruce, James, assignor to Scovill Manufacturing Company, Waterbury, Conn. Post-office box.....	224,486	Feb. 10	586	169	17	319
Spruce, James, assignor to Scovill Manufacturing Company, Waterbury, Conn. Spring-hinge.....	233,569	Oct. 19	962	265	18	912
Spruce, James, assignor to Scovill Manufacturing Company, Waterbury, Conn. Spring-hinge.....	235,468	Dec. 14	511	147	18	1374
Spurling, Andrew B. (See Stave, Lewis A., assignor.)						
Squintani, Carlo G., London, England. Printer's quoin.....	228,410	June 1	278	78	17	1271
Squire, Feargus B., et al. (See Bastet, Louis, assignor.)						
Squire, Wesley C., Florence, assignor of one-half interest to W. L. Fay, Elyria, Ohio. Dirt-scraper.....	233,122	Oct. 12	407	112	18	811
Staats, Henry N., Auburn, N. Y. Apparatus for propelling row-boats.....	235,822	Dec. 21	931	260	18	1452
Staats, Henry N., Auburn, N. Y. Apparatus for steering row-boats.....	235,823	Dec. 21	931	260	18	1452
Stabler, James P., Sandy Spring, Md. Call apparatus for telegraph-lines.....	235,058	Nov. 30	1544	415	18	1272
Stackhouse, William H., assignor of one-third interest to R. W. Oswald, Berwick, Pa. Draw-bar for railway-cars.....	232,152	Sept. 14	324	92	18	585
Stackpole, Greenleaf W. (See Ames, Samuel G., assignor.)						
Stacy, William, Cottage, Iowa. Ditching-machine.....	225,657	Mar. 16	791	232	17	614
Stacy, William, and D. Benjamin, Cottage, Iowa. Washing-machine.....	226,365	Apr. 6	240	71	17	790
Stafford, Cyrus G., Eureka, Cal. Reversible toasting-iron.....	224,740	Feb. 17	881	251	17	379
Stafford, L. (See Stafford, Oscar C., assignor.)						
Stafford, Lac. (See Stafford, Oscar C., assignor.)						
Stafford, Marshall B., New York, N. Y. Fire-extinguisher.....	233,570	Oct. 19	963	265	18	913
Stafford, Oscar C., assignor of one-half interest to L. Stafford, Minneapolis, Minn. Hot-air furnace.....	224,488	Feb. 10	588	{ 169 170 }	17	320
Stafford, Oscar C., assignor of one-half to L. Stafford, Minneapolis, Minn. Elevator-cup.....	235,309	Dec. 7	289	81	18	1329
Stahler, Tilghman, Zionsville, Pa. Milk-cooler.....	228,412	June 1	279	79	17	1272
Stahley, Erastus S., Aurora, Nebr. Windmill.....	223,256	Jan. 6	59	14	17	13
Stainback, A. L. (See Sledge, Henry B., assignor.)						
Stalker, Daniel B., New Petersburg, Ohio. Spark-arrester.....	225,886	Mar. 23	1068	305	17	669
Stambach, Sewestus P. (See Love, Robert, assignor.)						
Stambaugh, David F., and H. W. Crail, Edingham, Ill. Weather-strip.....	227,313	May 4	255	74	17	1020
Stamour, John B., Philadelphia, Pa., assignor of one-half interest to T. Cunningham, H. B. Lincoln, G. and L. Brown, F. P. Pendleton, and H. E. Cunningham. Loom-temple.....	233,043	Oct. 5	297	83	18	787
Stamp, John H., Wheeling, W. Va. Bung.....	228,227	June 1	77	23	17	1240
Stanage, John L. (See Jackson, Francis T., assignor.)						
Stanchfield, Daniel, Davenport, Iowa. Plow.....	229,484	June 29	1600	441	17	1497
Standard Measuring Machine Company. (See Tapley and Porter, assignors.) (Reissue.)						
Standefor, Franklin H., Fort Payne, Ala. Draft-equalizer.....	234,625	Nov. 16	1000	266	18	1170
Standish, Albert. (See Peters and Standish.)						
Standish, Philander H., Cuyahoga Falls, Ohio. Machinery for coiling metal rods or bars.....	224,852	Feb. 24	1043	297	17	420
Stanhope, Philip W., Jr., Covington, Ky. Pitman-connection.....	227,393	May 11	360	106	17	1047
Stanley, Edward, Brooklyn, N. Y. Paper-bag machine.....	225,887	Mar. 23	1069	305	17	669
Stanley, Francis, Toronto, Ontario, Canada. Plow.....	225,769	Mar. 23	941	272	17	647
Stanley, George A., Cleveland, Ohio. Lard-cooler.....	228,691	June 8	626	{ 169 170 }	17	1333
Stanley, James, Newark, N. J. Bridle-bit.....	224,851	Feb. 24	1042	297	17	420
Stanley, James C., New Hartford, Conn. Thread board and guide for spinning and twisting machines.....	226,126	Mar. 30	1371	386	17	730
Stanley, John F., Chaplin, Ky. Car-coupling.....	228,411	June 1	279	79	17	1272
Stanley Works. (See Beers, John W. A., assignor.)						
Stannard, John E., Springfield, Mass. Forming the bending-lines in paper boxes.....	235,821	Dec. 21	929	259	18	1452
Stansbury, James E. (See Robbins, Henry R., assignor.)						
Stansbury, John B., et al. (See Robbins, Henry R., assignor.)						
Stanton, J. Clark. (See Sorenson and Stanton.)						
Stanton, John O., and C. F. Manness, Scranton, Pa. Converter.....	233,571	Oct. 19	964	266	18	913
Stanton, John W., assignor to Fire Extinguisher Manufacturing Company, New York, N. Y. Fire-extinguisher.....	223,402	Jan. 6	217	58	17	40
Stanton, John W., assignor of part interest to A. J. Wolf, New York, N. Y., and F. Noble, Philadelphia, Pa.; said Noble assignor to said Wolf. Cabinet-bedstead.....	223,770	Jan. 20	674	181	17	137
Stanton, Spencer R., Oxford, Mich. Cultivator.....	233,379	Oct. 19	740	202	18	875

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Stapelmann, Franz, Allegheny, Pa. Belt-lifter.....	235,970	Dec. 28	1139	315	18	1494
Staples, Arthur, Lowell, Mass. Smoke-stack.....	230,673	Aug. 3	94	27	18	262
Staples, Arthur, Lowell, Mass. Sewer-trap.....	232,376	Sept. 21	613	168	18	640
Staples, John H., Boston, assignor to himself and S. R. Thompson, Brookline, Mass. Gate for turbines.....	225,495	Mar. 16	612	177	17	582
Staples, John H., Worcester, Mass. Turbine water-wheel.....	231,458	Aug. 24	994	220	18	429
Staples, Lafayette. (See Richardson, Theodore M., assignor.)						
Starck, Edward L., Baltimore, Md. Apparatus for drawing liquids from casks, &c.....	225,175	Mar. 2	218	61, 62	17	494
Starck, Ernst G., Chicago, Ill. Alcohol-stove.....	230,904	Aug. 10	370	106	18	314
Stark, Arthur R., et al. (See Root, George W., assignor.)						
Stark, James M., assignor of one-half interest to J. A. Reeves, Detroit, Mich. Spring bed-bottom.....	232,657	Sept. 28	941	259	18	702
Stark, Michael J. (See Mey and Stark.)						
Stark, Michael J., Buffalo, N. Y. Hand printing-wheel.....	232,856	Oct. 5	71	20, 21	18	751
Stark, William A., Bethany, Ill. Hog-holder and nose-ring carrier.....	228,286	June 1	155	43	17	1252
Starkloff, H. Maximilian. (See Glover, William H., assignor.)						
Starr, Eli T., assignor to S. S. White, Philadelphia, Pa. Chair.....	224,489	Feb. 10	589	170	17	320
Starr, Eli T., assignor to S. S. White, Philadelphia, Pa. Dentist's chair.....	225,432	Mar. 9	530	152	17	557
Starr, Eli T., assignor to J. W. and J. C. White and H. M. Lewis, trustees, Philadelphia, Pa. Dental-engine.....	229,645	July 6	151	42, 43	18	31
Starr, Eli T., assignor to J. W. and J. C. White and H. M. Lewis, trustees, Philadelphia, Pa. Dental-engine hand-piece.....	231,734	Aug. 31	1320	371	18	486
Starr, Eli T., assignor to J. W. and J. C. White and H. M. Lewis, trustees, Philadelphia, Pa. Dental-engine hand-piece.....	232,311	Sept. 14	519	144	18	619
Starr, Eli T., assignor to J. W. and J. C. White and H. M. Lewis, trustees, Philadelphia, Pa. Adjustable spittoon and table or tray holder.....	233,170	Oct. 12	462	127	18	821
Starr, Eli T., assignor to J. W. and J. C. White and H. M. Lewis, trustees, Philadelphia, Pa. Dental engine.....	233,294	Oct. 12	614	169	18	848
Starr, Eli T., assignor to J. W. and J. C. White and H. M. Lewis, trustees, Philadelphia, Pa. Dental plugger.....	233,572	Oct. 19	965	266	18	913
Starr, Eli T., assignor to J. W. and J. C. White and H. M. Lewis, trustees, Philadelphia, Pa. Dental-engine hand-piece.....	233,707	Oct. 26	1138	318	18	951
Starr, Eli T., assignor to J. W. and J. C. White and H. M. Lewis, trustees, Philadelphia, Pa. Dental hand-piece.....	233,708	Oct. 26	1140	318	18	951
Starr, Eli T., assignor to J. W. and J. C. White and H. M. Lewis, trustees, Philadelphia, Pa. Dental hand-piece.....	233,709	Oct. 26	1143	318	18	952
Starr, Eli T., Philadelphia, Pa., assignor to J. W. and J. C. White and H. M. Lewis, trustees. Dental plugger.....	229,769	July 6	299	83	18	52
Starr, Ferdinand W., Grand Ledge, Mich. Vehicle-wheel felly.....	235,176	Dec. 7	138	40	18	1305
Starr, Peter, Danbury, Conn. Hat-forming-machine feeder.....	230,833	Aug. 3	276	79	18	292
Starratt, Burpee R., assignor to himself and F. G. Smith, Truro, Nova Scotia. Railway-frog.....	233,041	Oct. 5	296	82	18	787
Starrett, Laro S., Athol, Mass. Try-square.....	229,283	June 29	1351	371	17	1464
Starrett, Laro S., Athol, Mass. Try-square. (Reissue.).....	9,419	Oct. 19	985	273	18	917
State, Ferdinand. (See State, John, assignor.)						
State, John, assignor to F. State, Springfield, Ohio. Lifting-jack.....	228,285	June 1	154	43	17	1251
Statler, Joseph, Mason City, Ill. Check-row attachment for corn-planters.....	223,821	Jan. 27	755	202	17	160
Stauder, Walter, assignor to Swiss Embroidery Manufacturing Company, St. Gall, Switzerland. Box for holding embroideries, &c.....	223,958	Jan. 27	916	245	17	185
Stauffacher, Antone, Judo, Wis. Cultivator.....	225,304	Mar. 9	390	114	17	534
Stauffer, Bernhard, Cologne, Prussia, Germany. Lubricating device.....	227,186	May 4	114	34	17	996
Stauffer, Bernhard, Berne, Switzerland. Lubricating device.....	228,137	May 25	1228	349	17	1208
Stauss, Carl W., Colbus, Prussia, Germany. Reed ceiling.....	231,114	Aug. 10	594	169	18	351
Stave, Lewis A., assignor to himself and A. B. Spurling, Chicago, Ill. Breech-loading fire-arm.....	232,214	Sept. 14	404	112	18	599
St. Clair, Harry L., assignor of one-third interest to J. K. Vandoren, Winneconne, Wis. Ironing-table.....	223,404	Jan. 6	219	58	17	40
Stead, James C., Brooklyn, N. Y., assignor to S. Morgau, Jersey City, N. J. Feed-water apparatus for steam-boilers.....	226,006	Mar. 30	1235	349	17	708
Stearns, Albert, Brooklyn, N. Y. Apparatus for molding and perforating plastic substances.....	224,239	Feb. 3	300	87	17	253
Stearns, Albert, Brooklyn, N. Y. Manufacture of carbonates and bicarbonates.....	224,240	Feb. 3	302	87	17	253
Stearns, Edward C. (See Smith, J. Heston, assignor.) (Reissue.)						
Stearns, Edward C. (See Stearns, George N., assignor.)						
Stearns, Edward C., Syracuse, N. Y. Hollow auger.....	225,496	Mar. 16	613	177	17	582
Stearns, George N., Syracuse, N. Y. Hub-trimmer.....	224,308	Feb. 10	390	110	17	287
Stearns, George N., Syracuse, N. Y. Hollow auger (Reissue).....	9,293	July 13	689	192	18	121
Stearns, George N., assignor, by mesne assignment, to E. C. Stearns, Syracuse, N. Y. Hollow auger.....	234,693	Nov. 23	1097	294	18	1191
Stearns, J. Milton, Jr., Brooklyn, assignor of one-half interest to F. K. Fitch, New York, N. Y. Telephone.....	231,627	Aug. 24	1181	330	18	458
Stearns Manufacturing Company. (See Cain, John, assignor.) (Reissue.)						
Stebbins, Lorenzo, Hinsdale, N. H. Window-fastener.....	224,804	Feb. 24	991	281	17	411
Stecher, Martin D., et al. (See Cook, George W., assignor.)						
Stedman, Daniel B., et al. (See Huston, David, assignor.)						
Stedman, Elihu P., Philadelphia, Pa. Vehicle-top.....	233,889	Nov. 2	74	19	18	999
Stedman, Nathan, Aurora, Ind. Corn sheller and cleaner.....	227,453	May 11	423	123	17	1057
Stedman, Nathan, Aurora, Ind. Shaft-coupling.....	234,343	Nov. 9	625	171	18	1099
Stedman, Nathan, Aurora, Ind. Cotton-press.....	235,390	Dec. 14	403	115	18	1357
Stedman, Nathan, Aurora, Ind. Ball-and-socket hanger.....	235,711	Dec. 21	803	226	18	1430
Steel, George C. (See Lynch, Harker, and Steel.)						
Steel, Robert, assignor of three-fourths interest to C. H. Binns, A. Steinmetz, Jr., and C. Spring, Philadelphia, Pa. Sewing-machine treadle.....	230,503	July 27	1208	340	18	219
Steel, Robert, assignor of four-fifths interest to C. H. Binns, A. Steinmetz, Jr., C. A. Spring, and W. A. Nichols, Philadelphia, Pa. Sewing-machine treadle.....	234,498	Nov. 16	833	222	18	1141
Steele, Charles R., et al. (See Wilson, Merrick F., assignor.)						
Steele, Samuel F., Baraboo, Wis. Drag-sawing machine.....	228,413	June 1	280	79	17	1272
Steen, James H., Salem, Ohio. Clothes-line stretcher and fastener.....	226,367	Apr. 6	243	71	17	790
Steers, Mary A., Kalamazoo, Mich. Pillow-sham holder.....	228,414	June 1	282	79	17	1272
Steers, William, Sherbrooke, Quebec, Canada. Bench-plane.....	227,452	May 11	422	122	17	1057
Steever, Isaac H. (See Shiver, Elisha, assignor.)						
Stegmann, George G., Lockport, N. Y. Drier for fruit, &c.....	230,207	July 20	822	232 } 233 }	18	151
Steiger, Jacob, Herisau, Canton Appenzell, Switzerland. Trimming.....	232,909	Oct. 5	137	36	18	760



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Steigert, Leopold, Cincinnati, Ohio. Meat-cutting machine.....	234,499	Nov. 16	834	{ 222 223 }	{ 18 }	1142
Stein, Christian F. F. (See Sander, Joel, assignor.)						
Stein, Clinton. (See Case and Stein.)						
Stein, George H., New Orleans, La. Rice-cleaner.....	228,788	June 15	786	215	17	1366
Stein, Hermann, assignor to J. Philippsohn and W. Leschziner, Berlin, Prussia, Germany. Machine for cutting cloth and other fabrics.....	226,427	Apr. 13	324	93	17	814
Stein, Oscar R., New York, N. Y. Lady's work-table.....	227,069	Apr. 27	1112	306	17	961
Steinau, David. (See Hall and Milton, assignors.)						
Steinbach, Charles, Chelsea, Mich. Harness-saddle.....	225,242	Mar. 9	309	88	17	522
Steinbock, Morris, New York, N. Y. Ironing-machine.....	225,176	Mar. 2	220	62	17	494
Steinborn & Huppelsberg. (See Huppelsberg, Friedrich W., assignor.)						
Steiner, Julius, St. Louis, Mo. Umbrella-support.....	235,106	Dec. 7	49	15	18	1289
Steinfels, Charles, assignor to himself and W. Harris, Elizabeth, N. J. Screw-polishing machine.....	236,103	Dec. 28	1293	355	18	1519
Steinlen, Charles V. (See Ducommun and Steinlen.)						
Steinman, A. J. (See Mercer, William, assignor.)						
Steinmetz, Adam, Jr., et al. (See Steel, Robert, assignor.)						
Steinmeyer, Julius, St. Louis, Mo. Ferrule for awl-handles.....	233,295	Oct. 12	616	170	18	848
Steinson, George, East Chester, N. Y. Leg for bedstead-frames.....	230,078	July 13	653	182	18	115
Steinway, Christian F. T., New York, N. Y. Piano-action and action-frame.....	226,492	Apr. 13	365	105	17	820
Steinway, C. F. Theodor, New York, N. Y. Screw-clamp for wood-bending machines.....	229,198	June 22	1250	343	17	1441
Steinway, C. F. Theodor, New York, N. Y. Upright piano-forte.....	230,354	July 20	996	282	18	178
Steinway, C. F. Theodor, New York, N. Y. Piano-forte hammer.....	231,629	Aug. 24	1184	331	18	458
Steinway, C. F. Theodor, New York, N. Y. Piano-forte hammer.....	231,630	Aug. 24	1184	331	18	458
Steinway, C. F. Theodor, New York, N. Y. Key-frame bed for piano-fortes.....	232,857	Oct. 5	73	21	18	751
Steinway, C. F. Theodor, New York, N. Y. Piano sounding-board bridge.....	233,710	Oct. 26	1145	319	18	952
Steinway, C. F. Theodor, New York, N. Y., assignor, by mesne assignments, to himself } and W. Steinway. Piano-forte. (Reissue.).....	9,431	Oct. 26	1280	{ 358 359 }	{ 18 }	976
Steinway, William. (See Steinway, C. F. Theodor, assignor.) (Reissue.)						
Stephens, Benjamin F., Brooklyn, N. Y. Taper jaw for vises.....	234,930	Nov. 30	1385	373	18	1245
Stephens, Benjamin F., Brooklyn, N. Y. Vise-jaws.....	235,177	Dec. 7	139	40	18	1305
Stephens, Benjamin F., Brooklyn, N. Y. Chuck for planing-machines.....	235,469	Dec. 14	512	148	18	1375
Stephens, Dabney B., assignor of one-half interest to E. M. and R. G. Pace, Lynchburg, Va. Horseshoe.....	234,695	Nov. 23	1099	295	18	1192
Stephens, J. E. (See Pendley and Moss, assignors.)						
Stephens, John G., and F. Darkin, Brooklyn, N. Y. Process and apparatus for manufactur- ing fiber.....	226,801	Apr. 20	766	214	17	895
Stephens, John G., Jersey City, N. J. Vegetable fiber from pine-leaves, &c.....	235,310	Dec. 7	230	.....	18	1329
Stephens Patent Vise Company. (See Hickcox, George A., assignor.)						
Stephens, William, New Richmond, Wis. Knot-tyer for self-binders.....	228,228	June 1	77	23, 24	17	1240
Stephenson, Frederick G., Plainville, Conn. Lantern-holder.....	234,500	Nov. 16	834	223	18	1142
Stephenson, George B., Bradford, Great Britain. Waxing warps in weaving.....	231,862	Aug. 31	1474	414	18	510
Stephenson, Harvey A., Allegheny, Pa. Concave truss.....	232,858	Oct. 5	74	21	18	751
Stephenson, John, New York, N. Y. Tram-car.....	235,311	Dec. 7	290	82	18	1329
Stephenson, William P., Portland, Ore. Valve-gear for steam-pumps.....	224,964	Feb. 24	1155	330	17	439
Sterick, Sylvester T. F., Georgetown, D. C., assignor to J. F. Wiggins, South New Market, N. H. Carriage-hub.....	226,888	Apr. 27	890	247	17	926
Stern, Edward. (See Du Motay, Cyprien T., assignor.)						
Stern, Edward. (See Du Motay and Stern.)						
Sternberger, Leopold, et al. (See Pfautz, Daniel M., assignor.)						
Sternberger, Leopold, Philadelphia, Pa. Clutching and braking device for power-driven sewing-machines.....	223,656	Jan. 20	549	148	17	117
Sternberger, Leopold, Philadelphia, Pa. Stand for power-driven sewing-machines.....	226,802	Apr. 20	768	214	17	895
Sternberger, Leopold, Philadelphia, Pa. Washing-machine.....	234,438	Nov. 16	762	205	18	1130
Sternberger, Leopold, Philadelphia, Pa. Belt-shifting mechanism for washing-machines.....	234,439	Nov. 16	764	{ 205 206 }	{ 18 }	1131
Sternberger, Samuel, et al. (See Pfautz, Daniel M., assignor.)						
Sternbergh, James H., Reading, Pa. Die for shaping nuts.....	226,938	Apr. 27	950	264	17	935
Sternner, John J. (See Fried, George W., assignor.)						
Sternheimer, Moses, New York, N. Y. Cane and umbrella handle.....	232,085	Sept. 7	251	69	18	565
Stetson, A. L. (See Jones, John E., assignor.)						
Stewart, James A., assignor of one-half interest to A. H. Dillon, Jr., Baltimore, Md. Life- preserver.....	227,314	May 4	255	74	17	1020
Steuerwald, Adam. (See Stratton and Steuerwald.)						
Steuerwald, William, New York, N. Y. Machine for packing meat into cans.....	227,854	May 18	880	251	17	1142
Steurer, John A. (See Bocker, Edward, assignor.)						
Stevens, Albert L., and A. B. Hampton, Hanson Station, Ky. Animal-trap.....	233,123	Oct. 12	408	113	18	811
Stevens, Andrew J., Sacramento, Cal. Power steering apparatus for vessels.....	230,079	July 13	653	182	18	115
Stevens, Andrew J., Sacramento, Cal. Power steering apparatus for vessels.....	231,505	Aug. 24	1043	293	18	436
Stevens, Asher B., Brooklyn, N. Y., assignor to Thompson, Perley & Waite, Baldwinsville, Mass. Child's chair.....	229,061	June 22	1107	301	17	1420
Stevens, Asher B., Stapleton, N. Y., assignor to Thompson, Perley & Waite, Baldwinsville, Mass. Child's chair.....	230,671	Aug. 3	92	21	18	261
Stevens, Asher B., Stapleton, N. Y., assignor to Thompson, Perley & Waite, Baldwinsville, Mass. Chair.....	230,970	Aug. 10	438	126	18	325
Stevens, Asher B., Stapleton, N. Y., assignor to Thompson, Perley & Waite, Baldwinsville, Mass. Nursery-chair.....	231,689	Aug. 31	1262	355	18	477
Stevens, Benjamin A., Toledo, Ohio. Ventilating-faucet.....	232,312	Sept. 14	520	145	18	619
Stevens, Benjamin A., Toledo, Ohio. Press for meat, fruit, &c.....	232,619	Sept. 28	896	247	18	694
Stevens, Charles E., Northampton, Mass. Composition for grinding-wheels.....	225,658	Mar. 16	793	.....	17	614
Stevens, Charles P., Boston, Mass. Inking-roller.....	230,444	July 27	1144	321	18	209
Stevens, Cyrus S., assignor to himself and G. S. Gilman, Lowell, Mass. Machine for filing saws.....	226,366	Apr. 6	241	71	17	790
Stevens, Edgar M., Boston, Mass., assignor, by mesne assignments, to Union Rubber Enamel Company, Nashua, N. H. Enameled rubber cloth.....	233,296	Oct. 12	616	.....	18	848
Stevens, Francis B., Hoboken, N. J. Piston-packing.....	235,971	Dec. 28	1139	316	18	1494
Stevens, Frank M., Concord, N. H. Dust-guard for cars.....	231,628	Aug. 24	1182	331	18	458
Stevens, Frank M., assignor of one-half interest to J. H. Pearson; said Pearson assignor of one-half his interest to C. C. Pearson, Concord, N. H. Steam-generator.....	232,773	Sept. 28	1072	294	18	724
Stevens, Frank M., assignor of one-half interest to J. H. Pearson; said Pearson assignor of one-half his interest to C. C. Pearson, Concord, N. H. Valve-gear for steam-engines.....	232,774	Sept. 28	1075	{ 294 295 }	{ 18 }	724
Stevens, Frank M., assignor of one-half interest to J. H. Pearson; said Pearson assignor of one-half his interest to C. C. Pearson, Concord, N. H. Rotary valve.....	232,775	Sept. 28	1078	295	18	725

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Stevens, Frank M., assignor of one-half interest to J. H. Pearson; said Pearson assignor of one-half his interest to C. C. Pearson, Concord, N. H. Locomotive.....	232,776	Sept. 28	1080	{ 295 296 }	18	725
Stevens, Franklin B., assignor to W. Springer and A. Brunk, Port Huron, Mich. Combined screw and lever lifting-jack.....	223,301	Jan. 6	117	29	17	21
Stevens, George D., New York, N. Y. Breastpin.....	227,594	May 11	584	167	17	1085
Stevens, George J., and J. S. Smith, London, England. Screw-propeller.....	235,657	Dec. 21	738	210	18	1419
Stevens, George M., Cambridge, Mass., and J. C. Hinchman, Summit, N. J.; said Stevens assignor, by mesne assignments, to said Hinchman. Hand-stamp. (Reissue).....	9,491	Dec. 7	323	89, 90	18	1336
Stevens, Grenville M., Deering, and H. J. Chisholm, Portland, Me. Machine for making frames or casings for lamps from paper-pulp.....	234,694	Nov. 23	1098	295	18	1192
Stevens, Henry L., assignor to Miller's Falls Company, Miller's Falls, Mass. Bit-brace.....	229,197	June 22	1249	343	17	1441
Stevens, James H. (See Powers and Stevens.)						
Stevens, John, Neenah, Wis. Grain-crushing roll.....	225,770	Mar. 23	942	272	17	648
Stevens, John, Neenah, Wis. Roller grinding-mill.....	228,001	May 25	1084	309	17	1185
Stevens, John, Neenah, Wis. Grinding-mill.....	230,834	Aug. 3	277	79	18	292
Stevens, John, Neenah, Wis. Grinding-mill.....	236,104	Dec. 28	1295	356	18	1519
Stevens, John H. (See Hyatt and Stevens.)						
Stevens, John H. (See Hyatt, Lockwood, and Stevens.)						
Stevens, Josiah C., Cambridgeport, Mass. Pipe and nut wrench.....	233,893	Nov. 2	77	20	18	999
Stevens, Levi, Washington, D. C. Process and apparatus for reducing ores.....	229,060	June 22	1106	{ 300 301 }	17	1420
Stevens, Lucious O., assignor of one-half interest to G. H. Lane, Burlington, Iowa. Grain grading and scouring apparatus.....	233,297	Oct. 12	617	170	18	848
Stevens, Marcens, Detroit, Mich. Picture-frame.....	223,613	Jan. 13	493	133	17	98
Stevens, Theodore C., Galesburg, Ill. Blow-pipe.....	233,951	Nov. 2	144	39	18	1010
Stevens, William H., Mendon, Mich. Thill-coupling.....	224,113	Feb. 3	166	47	17	231
Stevens, William J., Canajoharie, N. Y. Horse-power.....	230,587	July 27	1297	{ 365 366 }	18	235
Stevenson, Donald M., Cincinnati, Ohio. Table-desk.....	223,570	June 8	496	133	17	1314
Stevenson, John. (See McCaw, Stevenson, and Orr.)						
Steward, Aurelius, assignor to Wheeler & Wilson Manufacturing Company, Bridgeport, Conn. Plait-folder for sewing-machines.....	233,380	Oct. 19	741	202	18	876
Steward, John F., Plano, Ill. Mowing-machine.....	226,683	Apr. 20	645	179	17	875
Stewart, Alexander S. (See Stretcher, Howard, assignor.)						
Stewart, Andrew and J., and J. Wotherspoon, Coatbridge, North Britain. Draw-bench and carriage.....	234,211	Nov. 9	478	130	18	1074
Stewart, Archelaus V., assignor to R. B. Rapp, Cincinnati, Ohio. Hinged slate.....	224,965	Feb. 24	1156	331	17	439
Stewart, Archibald, Keota, Iowa. Car-starter.....	225,433	Mar. 9	531	152	17	558
Stewart, Carson D., Cleveland, Ohio. Fan attachment for sewing-machines.....	234,818	Nov. 23	1247	335	18	1216
Stewart, Charles E., Baltimore, Md. Combined refrigerator and dumb-waiter.....	231,369	Aug. 17	890	251	18	405
Stewart, David P., Buffalo, N. Y. Feed-water heater.....	232,563	Sept. 21	824	229	18	676
Stewart, George, High Point, N. C. Spark-arrester.....	223,403	Jan. 6	218	58	17	40
Stewart, James. (See Jones and Stewart.)						
Stewart, James. (See Stewart and Wotherspoon.)						
Stewart, James, Jr., and G. Peene, Jr., Yonkers, N. Y. Hand-truck.....	233,892	Nov. 2	75	20	18	999
Stewart, John. (See Skinner and Stewart.)						
Stewart, John B., St. John's, Mich. Button-fastener.....	230,504	July 27	1209	340	18	219
Stewart, John S., Muscoda, Wis. Hand-truck.....	229,770	July 6	301	84	18	52
Stewart, Levin J., Cappahosic, Va. Float for fattening oysters.....	227,855	May 18	881	251	17	1142
Stewart, Lyman, Titusville, Pa. Oil-well packer.....	230,080	July 13	655	183	18	116
Stewart, Lyman, Titusville, Pa. Ejector for oil-wells.....	235,712	Dec. 21	804	226	18	1430
Stewart, Lyman, Titusville, Pa. Oil-well packer.....	235,972	Dec. 28	1140	316	18	1494
Stewart, Peter V., and E. A. Price, South Orange, N. J. Combined shutter bower and fastener.....	224,618	Feb. 17	756	214	17	357
Stewart, William H., Boonville, Mo., assignor of one-half interest to J. B. Price. Calendar-clock.....	225,888	Mar. 23	1071	308	17	669
Stewart, William H., Brooklyn, assignor to T. New, New York, N. Y. Manufacture of roofing fabrics.....	226,461	Apr. 13	364	104	17	820
Stewart, William J., St. Louis, Mo. Sewing-machine.....	227,187	May 4	115	34	17	997
Stewart, William W., Brooklyn, N. Y. Stopper.....	234,342	Nov. 9	625	170	18	1099
St. George, Frank, Oxford, Mass. Feeder for flock-cutting machines.....	227,315	May 4	256	74	17	1020
Stichter, Henry P., Pottsville, Pa. Cover for commodes, &c.....	233,890	Nov. 2	74	19	18	999
Stichter, Walter H., Pottsville, Pa. Dust-pan.....	228,692	June 8	627	170	17	1333
Stickney, John. (See Hoffmann, Fredrick A., assignor.)						
Stiegler, Xavier, assignor to himself and J. Cargamel, Bar-le-Duc, Meuse, France. Feeding mechanism for looms for weaving seamless corsets, &c.....	235,915	Dec. 28	1068	296	18	1482
Stiffer, John H., Beckleysville, Md. Refrigerator.....	235,713	Dec. 21	806	227	18	1431
Stiles, David L., Rochester, N. Y. Stove. (Reissue).....	9,337	Aug. 3	305	87	18	298
Stiles, Herbert D., assignor of one-half interest to J. Gregg, Indianapolis, Ind. Head-rest.....	229,062	June 22	1108	301	17	1420
Stiles, Mark D. (See Ullman and Stiles.)						
Still, Francis N., assignor to himself and J. J. Nicholson, Lake City, Ill. Gate-pivot.....	228,951	June 15	968	263	17	1392
Still, J. Jones, Malvern, Pa. Mechanical telephone.....	225,177	Mar. 2	221	62	17	494
Stillman, Oscar B., Brookline, Mass. Mechanism for making cube-sugar.....	230,675	Aug. 3	96	27	18	262
Stillman, Thomas B., Plainfield, N. J., assignor to Eastern Electric Manufacturing Company, Middletown, Conn. Manufacture of nitrogen gas.....	225,730	Mar. 23	892	.....	17	640
Stillman, Thomas B., Plainfield, N. J., assignor to Eastern Electric Manufacturing Company, Middletown, Conn. Manufacture of nitrogen gas.....	226,632	Apr. 20	590	.....	17	866
Stillman, Thomas B., Plainfield, N. J. Apparatus for charging electric lamps with gas.....	227,454	May 11	425	{ 123 124 }	17	1058
Stilson, Lyman B., Minneapolis, Minn., assignor of one-half interest to A. Strassman, Milwaukee, Wis. Safety-hook for car-trucks.....	225,659	Mar. 16	793	232	17	614
Stilwell, Charles B., Worcester, Mass., assignor of one-half interest to E. J. Howlett, Philadelphia, Pa. Urn for coffee.....	225,731	Mar. 23	893	260	17	640
Stilwell, Emeline C. (See Stilwell, Rickason, assignor.)						
Stilwell, Rickason, New York, N. Y. Cot.....	223,551	Jan. 13	418	112	17	86
Stilwell, Rickason, assignor, by mesne assignment, to E. C. Stilwell, New York, N. Y. Material for stuffing pillows, beds, &c.....	231,459	Aug. 24	995	.....	18	429
Stimpson, Edward S., assignor to Dutcher Temple Company, Hopedale, Mass. Tool for setting temple-teeth.....	229,646	July 6	153	43	18	31
Stimpson, Edward S., assignor to Dutcher Temple Company, Hopedale, Mass. Machine for setting teeth in temple-rollers.....	230,674	Aug. 3	94	27	18	262
Stinchcomb, William W., et al. (See King, George W., assignor.)						
Stith, Henry T., assignor of one-half interest to S. H. Merrill, Ottawa, Kans. Traction-wheel.....	224,741	Feb. 17	882	251	17	379

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Stitzel, Frederick, Louisville, Ky., assignor of one-half interest to T. H. Sherley. Rack for tiering barrels. (Reissue).....	9,175	Apr. 27	1144	313	17	965
Stiverson, Anthony O., Apollo, Pa. Farm-harrow .....	226,563	Apr. 13	486	{ 136 137 }	{ 17 17 }	838
Stix, Henry, Cincinnati, Ohio. Pantaloon. ....	231,735	Aug. 31	1321	372	18	486
St. John, Garland B. (See Underwood and St. John.)						
St. John, Garland B., and J. K. Underwood, Cedar Rapids, Iowa. Rotary plow .....	227,070	Apr. 27	1113	306	17	961
St. John, Joseph, Penn Yan, N. Y. Grain-hulling machine .....	233,381	Oct. 19	742	203	18	876
St. John, William W., Sedalia, Mo. Steam-piston packing .....	228,571	June 8	497	133	17	1314
St. John, William W., St. Louis, Mo. Piston-packing .....	234,819	Nov. 23	1248	336	18	1216
St. Louis Type Foundry. (See Whitelaw, James, assignor.)						
St. Louis Wire Company. (See McGurran, Edward J., assignor.)						
Stoakes, James W., Milan, Ohio. Marking-peu .....	225,178	Mar. 2	222	62	17	494
Stock, Conrad, Wing's Station, assignor of one-half interest to F. Fowler, Dover Plains, N. Y. Revenue-stamp .....	224,853	Feb. 24	1044	297	17	420
Stock, George B., Toronto, Ontario, assignor to International Railway Supply Company, (limited,) Montreal, Canada. Railway-car brake .....	224,966	Feb. 24	1157	331	17	439
Stock, Hosea T., and W. Royce, Toledo, Ohio. Railway turn-table .....	235,312	Dec. 7	292	82	18	1330
Stockberger, Samuel L., Rochester, Ind. Spring bed-bottom .....	228,789	June 15	787	215	17	1367
Stockford, Benjamin F., South Bend, Ind. Iron-melting furnace .....	230,356	July 20	999	283	18	179
Stockham, Jerome B., Jackson, Mich. Pulley .....	228,415	June 1	282	80	17	1272
Stocking, Edgar B., Syracuse, N. Y. Satchel-bottom paper bag .....	223,959	Jan. 27	917	245	17	186
Stocking, Edgar B., Syracuse, N. Y. Paper-bag machine .....	223,960	Jan. 27	919	{ 245 246 }	{ 17 17 }	186
Stocking, Edgar B., Syracuse, N. Y. Paper-bag machine .....	223,961	Jan. 27	921	{ 246 247 }	{ 17 17 }	186
Stocking, Edgar B., Washington, D. C. Paper-bag machine .....	226,127	Mar. 30	1371	{ 386 387 }	{ 17 17 }	730
Stocking, Lewis G., Burlington, Iowa. Apparatus for raising and lowering sashes .....	232,313	Sept. 14	521	145	18	619
Stockinger, Jacob, <i>et al.</i> (See Schaefer, John A., assignor.)						
Stockman, John M., assignor to W. T. Garratt, San Francisco, Cal. Air-compressor .....	234,733	Nov. 23	1140	307	18	1199
Stockman, Walter S., Boston, Mass., assignor to himself and G. S. Porter, Norwich, Conn. Lock-hinge .....	226,684	Apr. 20	646	179	17	875
Stockman, Walter S., Boston, Mass. Awning-blind hinge .....	230,355	July 20	998	283	18	179
Stockmann, Christopher, Brooklyn, N. Y. Lamp .....	227,071	Apr. 27	1115	307	17	961
Stockmann, George H., Philadelphia, Pa. Thermostat for incubators .....	233,444	Oct. 19	818	225	18	888
Stockwell, Emory, and W. H. Taylor, assignors to Yale Lock Manufacturing Company, Stamford, Conn. Dial for locks .....	232,086	Sept. 7	251	69	18	565
Stockwell, Emory, assignor to Yale Lock Manufacturing Company, Stamford, Conn. Permutation-lock .....	233,950	Nov. 2	142	38	18	1010
Stockwell, Emory, Stamford, Conn. Permutation-lock .....	234,085	Nov. 2	313	86	18	1038
Stockwell, John A., Chicago, Ill., assignor, by mesne assignments, to American Shoe Tip Company, Hartford, Conn. Toe-protector for boots and shoes. (Reissue).....	9,514	Dec. 21	979	272	18	1461
Stockwell, Levi W., Cleveland, Ohio. Drive-chain .....	223,683	Jan. 20	583	157	17	122
Stockwell, Levi W., Cleveland, Ohio. Expansion-tap .....	227,394	May 11	361	106	17	1048
Stocum, Jonathan A., and R. M. Merrill, Englewood, Ill., assignors to said Stocum. Hay-stove .....	228,287	June 1	156	43	17	1252
Stoddard, Charles E., Chicago, Ill. Apparatus for desiccating eggs .....	235,039	Nov. 30	1521	410	18	1268
Stoddard & Co., John W., <i>et al.</i> (See Regan, Bernard, assignor.) (Reissue.)						
Stoddard, Curtis, and J. W. D. Fifield, North Brookfield, Mass. Crimping-machine .....	225,434	Mar. 9	532	153	17	558
Stoddard, Curtis, deceased, (N. B. and J. T. Stoddard, administrators,) North Brookfield, Mass. Shoe-tree .....	231,200	Aug. 17	714	200	18	376
Stoddard, E. Fowler. (See Nauman and Stoddard.)						
Stoddard, Eliakim, Poland, Ohio. Magnetic nose-guard for steel-grinders .....	233,891	Nov. 2	75	19	18	999
Stoddard, Freeman, Brooklyn, N. Y. Elevator .....	232,377	Sept. 21	614	168	18	640
Stoddard, Isaac H., Ansonia, Conn., assignor to E. & H. T. Anthony & Co. Photographic camera .....	231,506	Aug. 24	1045	293	18	437
Stoddard, Jason T., <i>et al.</i> , administrators. (See Stoddard, Curtis.)						
Stoddard, Joshua C., Springfield, Mass. Shoe-holder .....	223,822	Jan. 27	756	202	17	160
Stoddard, Lyman H., <i>et al.</i> (See Brooks, Abraham, assignor.)						
Stoddard, Marvin O., Poultney, Vt. Churn-cover .....	227,856	May 18	883	251	17	1142
Stoddard, Nancy B., <i>et al.</i> , administrators. (See Stoddard, Curtis.)						
Stoddard, Samuel G., Bridgeport, Conn., assignor to S. W. Lambeth, Philadelphia, Pa. Fly-fan .....	229,337	June 29	1423	390	17	1472
Stoddard, William C., <i>et al.</i> (See Brooks, Abraham, assignor.)						
Stoeffler, John P. (See Strub and Stoeffler.)						
Stoessiger, Augustus C., assignor to H. Rendtorff, Chicago, Ill. Stove-board. (Reissue)...	9,316	July 20	1063	299	18	190
Stohlmann, Frederick A., Brooklyn, N. Y. Tool-handle .....	236,105	Dec. 28	1297	356	18	1520
Stokes, Micajah, Houston, Tex. Apparatus for retailing shot .....	232,378	Sept. 21	615	{ 168 169 }	{ 18 18 }	640
Stokes, Samuel E., Philadelphia, Pa. Automatic hatch-closer .....	229,486	June 29	1601	441	17	1497
Stoler, Abraham, Philadelphia, Pa. Fertilizer-sower .....	235,714	Dec. 21	807	227	18	1431
Stoll, Charles, Brooklyn, N. Y. Machine for mashing and mixing brewers' mash. (Reissue).....	9,080	Feb. 17	912	261	17	385
Stoll, Jacob, Fountain City, Wis. Toothed-wheel wire fence .....	230,445	July 27	1145	321	18	209
Stoll, Jacob, Milwaukee, Wis. Tuiere .....	235,391	Dec. 14	409	115	18	1357
Stoll, William W., Brooklyn, N. Y. Grain-elevator .....	227,317	May 4	258	75	17	1020
Stone, Charles M. (See Reed, Albert, assignor.)						
Stone, David, New York, N. Y. Rubber bracelet .....	226,564	Apr. 13	487	137	17	838
Stone, George F., Medfield, Mass., assignor to H. Friedberger, Philadelphia, Pa. Braid-guide for straw-braid sewing-machines .....	231,370	Aug. 17	891	251	18	405
Stone, Henrie D., Boston, Mass. Boot and shoe edge burnishing machine .....	223,772	Jan. 20	676	182	17	137
Stone, John W., Lynchburg, Va., assignor to Myers Brothers & Co. Tobacco-case. (Reissue).....	9,437	Oct. 26	1290	360	18	978
Stone, Lawson B., Boston, Mass. Rock-drill .....	229,485	June 29	1600	441	17	1497
Stone, Lester D. (See Horton, Henry W. and S. S., assignors.)						
Stone, Roy, New York, N. Y. Hydraulic excavating .....	224,309	Feb. 10	391	110	17	287
Stone, Tucker B., St. Louis, Mo. Grinding and polishing implement .....	223,771	Jan. 20	676	182	17	137
Stone, Willis C. (See Ransom and Stone.)						
Stoneburner, J. J., <i>et al.</i> (See Ludwig, John M., assignor.)						
Stoneburner, Lewis T., <i>et al.</i> (See Ludwig, John M., assignor.)						
Stoner, Benjamin F., Rockford, Ill. Hose-reel .....	225,081	Mar. 2	125	36	17	478
Stoner, John B., Toledo, Ohio. Grain-meter .....	228,229	June 1	80	24, 25	17	1240
Storch, Valentin, Knoxville Borough, Pa. Soldering-iron .....	236,106	Dec. 28	1298	356	18	1520

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Storer, Joseph, Hammersmith, England. Fountain.....	226,428	Apr. 13	326	93, 94	17	814
Storey, William H., Acton, Ontario, Canada. Glove-fastener.....	228,484	June 8	390	108	17	1298
Storle, Ole O., Milwaukee, Wis., assignor, by mesne assignments, to J. H. Gordon, Rochester, N. Y. Grain-binder.....	223,614	Jan. 13	494	133	17	98
Storm, John C., Menomonee, Wis. Sleigh-knee.....	227,455	May 11	427	124	17	1058
Story, John, Baldwin township, Allegheny county, Pa. Connecting parts of glass or china ware utensils.....	224,120	Feb. 3	174	49	17	232
Story, John, Baldwin township, Allegheny county, Pa. Attaching metal collars to glass utensils.....	229,063	June 22	1109	301	17	1421
Story, Joseph M., Cincinnati, Ohio. Gang-saw mill.....	235,824	Dec. 21	932	260	18	1452
Story, Samuel L., Hillsborough, Ky. Sad-iron.....	224,854	Feb. 24	1045	298	17	420
Stossmeister, Albert W., Newport, Ky. Wood-working machine.....	229,199	June 22	1251	344	17	1441
Stotlemeyer, John D., Hancock, Md. Hitching-strap.....	236,107	Dec. 28	1299	356	18	1520
Stott, Benjamin, assignor to Chester Tube and Iron Company, South Chester, Pa. Screw-cutting machine.....	225,305	Mar. 9	391	114	17	535
Stoup, Charles M., Flat Rock, Mich. Thill-coupling.....	230,586	July 27	1297	365	18	235
Stout, James A., assignor to himself and Harrison Machine Works, Belleville, Ill. Traction-engine.....	223,405	Jan. 6	219	58, 59	17	40
Stout, Thomas H. (See Brock, William E., assignor.)						
Stover, Atkins, Brooklyn, N. Y. Velocipede-horse.....	230,722	Aug. 3	145	43	18	270
Stover, Daniel C., Freeport, Ill., assignor to Washburn & Moen Manufacturing Company, Worcester, Mass. Reel for coiling wire.....	224,805	Feb. 24	992	281	17	412
Stover, Henry D., New York, N. Y. Machine for cutting and conveying wood-shavings.....	227,316	May 4	257	75	17	1020
Stow, Nelson, Binghamton, N. Y. Sign.....	225,889	Mar. 23	1072	306	17	669
Stow, Nelson, assignor to W. L. Griswold, Binghamton, N. Y. Machine for brushing animals.....	227,857	May 18	885	251	17	1142
Stow, Orson W., Plantsville, Conn. Coffee or spice mill.....	225,243	Mar. 9	310	88	17	523
Stow, Orson W., and H. S. Grannis, Plantsville, assignors to Peck, Stow & Wilcox Company, Southington, Conn. Tinsmith's shearing device.....	230,905	Aug. 10	370	107	18	314
Stow, Orson W., Plantsville, assignor to Peck, Stow & Wilcox Company, Southington, Conn. Apple-parer.....	233,044	Oct. 5	299	83	18	787
Stowe, Benjamin L., assignor to J. V. Reed, New York, N. Y. Automatic car-brake.....	231,115	Aug. 10	595	169	18	351
Stowe, Benjamin L., assignor to J. V. Reed, New York, N. Y. Automatic car-brake.....	231,116	Aug. 10	598	170	18	351
Stowe, Benjamin L., assignor to J. V. Reed, New York, N. Y. Mechanism for detecting waste of water from pipes.....	234,086	Nov. 2	315	87	18	1038
Stowell, Barna T., Perrysburg, Ohio. Corn-planter.....	225,660	Mar. 16	795	233	17	615
St. Paul Harvester Works. (See Edward, John H., assignor.) (Reissue.)						
Straight, George W. (See Odell, Thomas L., assignor.)						
Strait, Celestia L. (See Strait, William, assignor.)						
Strait, Celestia L., et al. (See Strait, William, assignor.) (Reissue.)						
Strait, Ransom E., Galesburg, Mich. Wind-engine.....	225,539	Mar. 16	665	194	17	591
Strait, Ransom E., Galesburg, Mich. Pump. (Reissue.)	9,327	Aug. 3	294	84	18	296
Strait, William, Oneonta, N. Y., assignor to C. E. Van Dusen and C. L. Strait. Side-hill plow. (Reissue.)	9,116	Mar. 9	563	163	17	564
Strait, William, assignor to C. L. Strait, Oneonta, N. Y. Side-hill plow.....	233,046	Oct. 5	301	84	18	788
Strange, Benjamin F., Corvallis, Mont. Ter. Safety appliance for releasing horses.....	225,179	Mar. 2	223	63	17	494
Strange, Emerson C., Taunton, Mass. Music-rack.....	230,446	July 27	1145	322	18	209
Strassman, Adolphus. (See Stilson, Lyman B., assignor.)						
Straszer, John, Manchester, Mo. Cut-off for cistern supply-pipes.....	233,573	Oct. 19	967	266	18	913
Strattan, John T., et al. (See Strattan, Samuel R., assignor.)						
Strattan, Samuel R., assignor of two-thirds interest to J. T. Strattan and W. D. Doremus, Washington, D. C. Ticket-case.....	231,863	Aug. 31	1475	414	18	511
Stratton, James, et al. (See Clark, Thomas C., assignor.)						
Stratton, William W., and A. Steuerwald, assignors of one-third to W. W. Zapp, Columbus, Ohio. Adjustable cornice.....	234,344	Nov. 9	627	171	18	1099
Straub, Ambrose W., Philadelphia, Pa. Flour-packer.....	225,028	Mar. 2	54	15, 16	17	465
Straus, Jacob, St. Louis, Mo. Saddle.....	233,816	Oct. 26	1260	352	18	973
Strausky, Maurice, et al. (See Hesse, Frederick C., assignor.)						
Strauss, Leopold, Middletown, Conn. Scissors and shears.....	226,128	Mar. 30	1374	387	17	731
Strauss, Leopold, Middletown, Conn. Screw-bolt.....	228,288	June 1	158	44	17	1252
Strauss, Samuel, Chattanooga, Tenn. Mail-bag.....	235,059	Nov. 30	1547	416	18	1273
Straw, Samuel D. (See Payne and Danforth, assignors.)						
Strawbridge, Alfred G. (See Lawrence, Hammon, and Strawbridge.)						
Street, James K. (See Rushforth, William H., assignor.)						
Streeter, Amro W. (See Parks and Streeter.)						
Streeter, Nelson R., Groton, N. Y. Arrow-rest for bows.....	224,114	Feb. 3	167	47	17	231
Strehli, Joseph H., Cincinnati, Ohio. Stop-valve. (Reissue.).....	9,142	Apr. 6	262	77	17	794
Strehorn, Charles. (See Perkins, Strehorn, and Dixon.)						
Streiff, Peter. (See Langmaak and Streiff.)						
Streit, Charles, Cincinnati, Ohio. Rocking-chair. (Reissue.).....	9,046	Jan. 13	520	140	17	103
Streit, Charles, Cincinnati, Ohio. Extension-lounge. (Reissue.).....	9,099	Feb. 24	1185	339	17	444
Stretcher, Howard, assignor to himself and A. S. Stewart, Indianapolis, Ind. Adjustable leg for step-ladders.....	230,208	July 20	823	233	18	151
Striely, Frank H., Cleveland, Ohio. Paper-box machine.....	223,406	Jan. 6	221	59	17	41
Sritter, Theodore G., Batesville, Ark. Paddle-wheel.....	233,045	Oct. 5	300	83	18	787
Strobel, Fredrick. (See Huber and Strobel.)						
Stroh, John W. (See Marks, James F., assignor.)						
Stromberg, Charles J. (See Goss, Frederick L., assignor.)						
Strong, David A. (See McGann, Owen J., assignor.)						
Strong, David A. (See Robinson and Strong.)						
Strong, George S., Philadelphia, Pa. Feed-water heater.....	226,939	Apr. 27	950	264	17	936
Strong, George S., Philadelphia, Pa. Feed-water heater.....	227,072	Apr. 27	1116	307	17	961
Strong, George S., Philadelphia, Pa. Locomotive smoke-stack.....	235,825	Dec. 21	934	261	18	1453
Strong, George T., Port Hope, Ontario, Canada. Apparatus for enriching and economizing coal-gas.....	225,435	Mar. 9	534	153	17	558
Strong, Henry C., Mauston, Wis. Plow-truck.....	234,087	Nov. 2	316	87	18	1039
Strong, Henry C., Chicago, Ill. Relay-telephone.....	235,658	Dec. 21	739	210	18	1419
Strong, John J. and K. M., Talladega, Ala. Device for protecting tables, &c., from crawling insects.....	233,574	Oct. 19	967	267	18	913
Strong, Kate M. (See Strong, John J. and K. M.)						
Stroud, James, and O. C. Titus, New York, N. Y. Door-wicket.....	223,552	Jan. 13	419	112	17	86
Stroud, William D., Oshkosh, Wis. Horse hay-rake.....	223,553	Jan. 13	420	112	17	86
Strouse & Co., Mayer. (See Bray, Morris P., assignor.)						
Strub, Frank, and J. P. Stoeffler, Ceres, assignors of one-third interest to H. Aulwes, Guttenberg, Iowa. Nut-lock.....	231,371	Aug. 17	892	251	18	405



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Strunk, Daniel, assignor of one-half interest to J. B. Crosby, Janesville, Wis. Grain-binder..	223,407	Jan. 6	223	59	17	41
Strunk, Daniel, assignor of one-half interest to J. B. Crosby, Janesville, Wis. Grain-binder..	223,773	Jan. 20	678	182 183	17	137
Struppler, Albert H., Horrickville, Pa. Tire-upsetter.....	229,647	July 6	154	43	18	31
Stuart, John E., Crossville, Ill. Barh-wire fencing.....	230,505	July 27	1209	341	18	219
Stuart, Levi B., Seymour, assignor to himself and T. Wallace, Ansonia, Conn. Thill-coupling.....	235,826	Dec. 21	936	261	18	1453
Stuart, Timothy E. (See Emery, John A., assignor.)						
Stuart, William M., assignor of one-half interest to S. S. Leland, Quincy, Mich. Pipe-coupling.....	229,771	July 6	302	84	18	52
Stubblebine, William, Bethlehem, assignor of one-half interest to B. C. Lauth, Philadelphia, Pa. Puddling and heating furnace.....	223,962	Jan. 27	925	247	17	187
Stubblebine, William, Bethlehem, assignor of one-half interest to B. C. Lauth, Philadelphia, Pa. Puddling and heating furnace. (Reissue).....	9,140	Apr. 6	260	77	17	794
Stubblebine, William, Bethlehem, assignor of one-half interest to B. C. Lauth, Philadelphia, Pa. Puddling and heating furnace.....	226,368	Apr. 6	243	72	17	790
Stubbs, Jesse, Mount Pleasant, Iowa. Road-scraper.....	230,081	July 13	655	183	18	116
Stubbs, Jesse, and F. Jonas, Mount Pleasant, Iowa; said Jonas assignor of one-half interest to said Stubbs. Road-scraper.....	232,859	Oct. 5	75	22	18	751
Stucky, Stephen, Lincoln, Ala. Cotton-press.....	234,626	Nov. 16	1000	266	18	1170
Stucky, Stephen, Lincoln, Ala. Bale-band tightener.....	234,734	Nov. 23	1142	308	18	1199
Stumpf, Florence H. (See Fleming, James W., assignor.)						
Stumpf, Florence H., St. Joseph, Mo. Fluting-iron.....	226,803	Apr. 20	769	214	17	895
Stuntz, Chauncey R., Cincinnati, Ohio. Blow-pipe.....	227,136	May 4	57	15	17	987
Sturges, Ebenezer H., Wing's Station, N. Y. Housekeeper's safe.....	224,490	Feb. 10	592	171	17	320
Sturtevant, Thomas L., South Framingham, Mass. Folding boat.....	231,117	Aug. 10	601	170	18	351
Stutz, Sebastian, Pittsburg, Pa. Coal-washing machinery.....	226,940	Apr. 27	952	264	17	936
Stutz, Sebastian, Pittsburg, Pa. Coal-washing machine.....	227,930	May 25	990	284	17	1170
Stygall, James S., Jr., et al. (See King, Sidney B., assignor.)						
Styron, John L., assignor of one-half interest to G. T. Lewis, Syracuse, N. Y. Folding chair..	226,685	Apr. 20	647	180	17	875
Suckert, Julius J. (See De La Vergne and Suckert.)						
Suddoth, Alexander K., and W. L. Canfield, Friar's Point, Miss. Elevator.....	231,118	Aug. 10	602	171	18	352
Sudlow, William E., Jersey City, N. J. Rotary engine.....	223,257	Jan. 6	59	15, 16	17	13
Sugru, Edward J., et al. (See Greene, James G., assignor.)						
Suhr, Emil, Brooklyn, and C. Wise, assignors to L. Sanders, New York, N. Y. Fan.....	232,314	Sept. 14	522	145	18	620
Suisse, Charlouis, St. Clair, Mich. Saw.....	229,772	July 6	302	84	18	52
Suitt, James B., Indianapolis, Ind. Grain-separator.....	224,801	Feb. 24	989	280	17	411
Suitt, James B., Indianapolis, Ind. Spark-arrester.....	224,802	Feb. 24	989	280	17	411
Suitt, James B., Indianapolis, Ind. Spark-arrester.....	224,803	Feb. 24	990	280	17	411
Sulgrove, Milton M., Indianapolis, Ind. Breaching-stay for harness.....	223,774	Jan. 20	620	183	17	138
Sullings, Hervey, Kalamazoo, Mich. Stock-car.....	230,835	Aug. 3	279	80	18	293
Sullivan, Charles A., Starkville, Miss. Flying-machine.....	235,040	Nov. 30	1522	410	18	1268
Sullivan, Charles P., Lino Creek, S. C. Adding-machine.....	228,416	June 1	283	80	17	1272
Sullivan, Hewlett K. (See Brockman, William H., assignor.)						
Sullivan, James F., Fitchburg, Mass. Dividers.....	225,436	Mar. 9	535	153	17	558
Sullivan, James F., Fitchburg, Mass. Brow-band for bridles.....	227,188	May 4	117	34	17	997
Sullivan Machine Company. (See Ball, Albert, assignor.)						
Sullivan, Mark, J. Kessler, and J. R. Foster, Dubuque, Iowa. Wooden truss-bridge.....	224,491	Feb. 10	592	171	17	320
Sullivan, Michael, and H. Christofferson, West Depere, assignors of one-third interest to Kelly & Hughes, Hudson, Wis. Thrashing-machine.....	232,087	Sept. 7	252	69	18	565
Summers, William M. (See Bruce, John B., assignor.)						
Sumner, Charles. (See Townsend, Matthew, assignor.)						
Sumner, Dwight C., Millbury, Mass. Cloth-shearing machine. (Reissue).....	9,188	May 4	293	85	17	1026
Sumner, Dwight C., Millbury, Mass. Cloth-finishing machine. (Reissue).....	9,265	June 29	1627	448	17	1500
Sumner, Dwight C., Millbury, Mass. Fabric. (Reissue).....	9,266	June 29	1629	449	17	1501
Sumner, Dwight C., Millbury, Mass. Cloth-shearing machine.....	229,648	July 6	155	43	18	32
Sumner, Eli J., Mooresville, Ind., assignor to J. J. Curran, I. and M. Wolff. Lumber-drier. } (Reissue).....	9,309	July 20	1045	295 296	18	187
Sumner, Frederick W. and T. B., Hutchinson, Minn. Straw-carrier.....	229,649	July 6	156	44	18	32
Sumner, George F., administrator. (See Townsend, Matthew.)						
Sumner, Thomas B. (See Sumner, Frederick W. and T. B.)						
Sampter, John U., Lynchburg, assignor of one-half interest to L. D. Lorentz, Christiansburg, Va. Car-axle box.....	226,369	Apr. 6	245	72	17	790
Sunderlin, Martin J., Watkins, N. Y. Apparatus for cleaning horses.....	226,565	Apr. 13	487	137	17	839
Sunderlin, William D. (See Robinson and Sunderlin.)						
Sunderman, John H., Quincy, Ill. Whip-socket.....	224,241	Feb. 3	302	88	17	253
Suplee, Albert H., deceased, G. E. Butler and A. H. Suplee, executors, and assignors, by mesne assignments, to M. M. Johnston, New York, N. Y. Shank for tools. (Reissue).....	9,472	Nov. 16	1036	277	18	1176
Suppes, Theodore, Buffalo, Ill. Washing-machine.....	226,566	Apr. 13	488	138	17	839
Surface Motor Company of New York City. (See Angamar, Eugene H., assignor.)						
Sustaire, John T., Matthews, N. C. Cotton-chopper.....	225,890	Mar. 23	1072	306	17	670
Suter, John, New York, N. Y. Crayon-sharpener.....	225,732	Mar. 23	895	260	17	641
Sutherland, Alexander M., New York, N. Y. Stylographic fountain-pen.....	231,690	Aug. 31	1264	355	18	473
Sutherland, Daniel A., assignor of one-half interest to J. N. Smith, Lynn, Mass. Apparatus for shaping wooden heels.....	230,157	July 20	765	213	18	142
Sutherland Falls Marble Company. (See Powers, Charles F., assignor.)						
Sutherland, Mosher A. (See Lyon, Edward, assignor.)						
Sutton, Delacy F., Rochester, N. Y. Knife for mowers and reapers.....	226,129	Mar. 30	1374	388	17	731
Sutton, Delacy F., Rochester, N. Y. Scroll-saw.....	226,130	Mar. 30	1375	388	17	731
Sutton, Frederick R., Lawrence, Kans. Sad-iron.....	226,633	Apr. 20	591	165	17	866
Sutton, Harvey W., New Richmond, Ohio, assignor of one-half to W. P. Houston. Tire-tightener.....	234,088	Nov. 2	317	87	18	1039
Sutton, John R., Brooklyn, N. Y. Cigarette.....	235,392	Dec. 14	409	115	18	1357
Sutton, John W., New York, N. Y. Machine for waxing or varnishing paper.....	232,777	Sept. 28	1084	297	18	726
Sutton, Lyman W., Jr., assignor of four-fifths interest to F. L. Mattison, W. M. and C. A. Smith, Newton, N. J., and W. McMurtrie, Washington, D. C. Transmitting-telephone..	229,489	June 29	1606	443	17	1498
Sutton, Samuel I., Dublin, Va. Sash-holder.....	224,363	Feb. 10	452	130	17	297
Swain, David M., assignor of two-thirds to Seymour, Sabin & Co., Stillwater, Minn. Boiler for portable engines.....	234,627	Nov. 16	1001	267	18	1170
Swain, David M., assignor of two-thirds to Seymour, Sabin & Co., Stillwater, Minn. Boiler for portable engines.....	235,041	Nov. 30	1523	410	18	1269
Swan, Joseph W., Newcastle-upon-Tyne, England. Electric lamp.....	233,445	Oct. 19	819	225 226	18	888
Swan, Joseph W., Newcastle-on-Tyne, England. Electric lamp.....	234,345	Nov. 9	627	171	18	1100
Swan, Robert F., Mount Pleasant, Tex. Spark-arrester.....	233,171	Oct. 12	464	128	18	821

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Swanson, David A., Rio Grande, Ohio. Combined hand corn-planter and fertilizer-distributor	224,242	Feb. 3	303	88	17	253
Swanston, James A., <i>et al.</i> (See Eddy, George W., assignor.)						
Swanston, William. (See Cooney and Swanston.)						
Swartwout, John H. (See Barlow, Ashbel P., assignor.) (Reissue.)						
Swartz, John H., and D. C. Taylor, Brooklyn, assignors to Bell Meter Company, (limited), New York, N. Y. Water-meter	233,446	Oct. 19	820	226	18	888
Swartz, Peter S., and A. Arnot, Lexington, Mich. Plow	226,567	Apr. 13	489	138	17	839
Swartz, Robert E., Rock Island, Ill. Plowshare	228,138	May 25	1229	349	17	1208
Swayne, L. P. (See Merine, John C., assignor.)						
Sweaner, George, Montreal, Quebec, Canada. Apparatus for distributing currents to electric lights	234,820	Nov. 23	1249	336	18	1216
Sweatt, Leroy A., assignor of one-half interest to P. Larson, Santa Clara, Cal. Wheeled scraper	226,686	Apr. 20	648	180	17	875
Sweeney, John, assignor of one-third interest to J. T. Leighton, New Haven, Conn. Car-door	232,153	Sept. 14	324	92	18	585
Sweeney, Joseph J., and W. W. Wetmore, assignors of one-half interest to Winchester Repeating Arms Company, New Haven, Conn. Magazine fire-arm	223,409	Jan. 6	226	60	17	41
Sweeney, Oliver, Philadelphia, Pa. Lamp	225,662	Mar. 16	797	233	17	615
Sweeney, Oliver, Philadelphia, Pa. Reservoir-lamp	232,778	Sept. 28	1085	297	18	726
Sweeney, Patrick, Leadville, Colo. Drilling-machine for Artesian and other wells	234,346	Nov. 9	628	171	18	1100
Sweeney, Peter, New York, N. Y. Fire-grate	230,906	Aug. 10	371	107	18	315
Sweeney, Thomas, deceased, assignor, by mesne assignments, to F. A. Osborn, Boston, Mass. Water-meter. (Reissue.)	9,379	Sept. 14	539	149	18	623
Sweet, Alonzo L., Norwich, Conn. Drill-chuck	226,370	Apr. 6	246	72	17	791
Sweet & Clark <i>et al.</i> (See Sweet, Miles, assignor.)						
Sweet, D. Fred., assignor of one-half interest to W. E. Upjohn, Hastings, Mich. Electromagnetic clock	224,243	Feb. 3	304	88	17	254
Sweet, Joabert, Attleborough, Mass. Bracelet	225,661	Mar. 16	796	233	17	615
Sweet, Leonard G., Amsterdam, N. Y. Machine for operating churns	223,258	Jan. 6	62	16	17	13
Sweet, Miles, Troy, N. Y. Curry-comb	223,775	Jan. 20	681	183	17	138
Sweet, Miles, assignor to Sweet & Clark and W. P. Kellogg, Troy, N. Y. Curry-comb	234,501	Nov. 16	835	223	18	1142
Sweet, William A., Syracuse, N. Y. Steel bar for mining-drills	228,485	June 8	391	108	17	1298
Sweet, William A., Syracuse, N. Y. Roll for rolling steel bars for mining-drills	228,486	June 8	391	109	17	1299
Sweet, William R., Peru, Wis. Feather-renovator	231,864	Aug. 31	1476	414	18	511
Sweetland, Alvah, Syracuse, N. Y. Door and shutter fastener	223,408	Jan. 6	225	60	17	41
Sweetland, Jerome B., Pontiac, Mich. Fruit-evaporator	228,953	June 15	969	264	17	1392
Sweetland, Jerome B., Pontiac, Mich. Fruit-drier	233,298	Oct. 12	610	170 171	18	849
Sweetland, William W., Edwardsburg, Mich. Sash-supporter	225,180	Mar. 2	223	63	17	495
Sweetland, William W., Edwardsburg, Mich. Sash-fastener	235,042	Nov. 30	1525	411	18	1269
Swezey, Joseph B., East Patchogue, N. Y. Animal-shears	233,575	Oct. 19	968	267	18	913
Swickard, John W., assignor to T. Brownlee, Galva, Ill. Cultivator	235,393	Dec. 14	410	115 116	18	1357
Swift, Benjamin, Brooklyn, N. Y. Fire-lighter	225,244	Mar. 9	311	88	17	523
Swift, Thomas, <i>et al.</i> (See Perry, Arthur F., assignor.)						
Swindell, Moses B., Kenton, Tenn. Drag-saw	229,488	June 29	1605	443	17	1498
Swinehart, Jacob A., and L. Jourdan, Rushville, Ohio. Drag-sawing machine	224,968	Feb. 24	1164	333	17	440
Swingle, Alfred, San Francisco, Cal. Revolving fire-arm	224,742	Feb. 17	883	252	17	380
Swisher, Jacob B., and J. R. Mershon, Newton, Iowa. Grinding-mill	232,779	Sept. 28	1086	297	18	726
Swiss Embroidery Manufacturing Company. (See Stander, Walter, assignor.)						
Swivel, Jacob. (See Gne and Grant, assignors.)						
Swope, Isaac, St. Louis, Mo. Bottle-wrapper	228,002	May 25	1086	309	17	1185
Sykes, Raymond G., Niles, Ohio. Sheet-metal roof	225,733	Mar. 23	896	261	17	641
Sylvester, Philip L., Auburn, N. Y. Folding step-ladder	235,827	Dec. 21	936	261 262	18	1453
Sylvester, Philip L., assignor to Woodruff Brothers, Auburn, N. Y. Manufacture of buttons from plastic material	229,490	June 29	1607		17	1498
Sylvester, Philip L., assignor to Woodruff Brothers, Auburn, N. Y. Manufacture of buttons from plastic material	229,491	June 29	1607		17	1498
Sylvester, Philip L., assignor to Woodruff Brothers, Auburn, N. Y. Manufacture of buttons from plastic material	229,492	June 29	1608		17	1498
Sylvester, Philip L., assignor to Woodruff Brothers, Auburn, N. Y. Manufacture of buttons from plastic material	229,493	June 29	1608		17	1498
Sylvester, Philip L., assignor to Woodruff Brothers, Auburn, N. Y. Manufacture of buttons from plastic material	229,494	June 29	1609		17	1498
Sylvester, Philip L., assignor to Woodruff Brothers, Auburn, N. Y. Manufacture of buttons from plastic material	230,082	July 13	656	183	18	116
Sylvester, Philip L., assignor to Woodruff Brothers, Auburn, N. Y. Apparatus for the manufacture of buttons from plastic material	230,083	July 13	657	183	18	116
Sylvester, Philip L., assignor to Woodruff Brothers, Auburn, N. Y. Manufacture of buttons from plastic material	231,372	Aug. 17	892	252	18	405
Sylvester, Philip L., assignor to Woodruff Brothers, Auburn, N. Y. Manufacture of buttons from plastic material	232,088	Sept. 7	253	70	18	565
Sylvester, Philip L., assignor to Woodruff Brothers, Auburn, N. Y. Manufacture of buttons from plastic material	232,564	Sept. 21	825		18	676
Sylvester, Philip L., assignor to Woodruff Brothers, Auburn, N. Y. Manufacture of buttons from plastic material	232,565	Sept. 21	826		18	676
Sylvester, Philip L., assignor to Woodruff Brothers, Auburn, N. Y. Manufacture of buttons from plastic material	232,566	Sept. 21	826		18	676
Sylvester, Philip L., assignor to Woodruff Brothers, Auburn, N. Y. Manufacture of buttons from plastic material	232,567	Sept. 21	827	229	18	676
Symonds, Herbert, Detroit, Mich. Hooded coal-hod	228,952	June 15	968	263	17	1392
Symonds, John L., Detroit, Mich. Animal-trap	228,693	June 8	688	170 171	17	1334
Synnott, Thomas W., Wenonah, N. J. Machine for finishing the necks of bottles	226,839	Apr. 27	891	248	17	926
Szink, Henry C., assignor of one-half interest to L. R. Poffenberger, Altoona, Pa. Die for making draw-heads for cars	232,215	Sept. 14	407	113	18	599
Szybowski, Joseph S., Bayborough, N. C. Thill-coupling	230,971	Aug. 10	440	126	18	325
Taber, Benjamin A., North East, Pa. Bag-holder	232,568	Sept. 21	827	229	18	676
Taber, Freeman A., Boston, Mass. Lamp	230,360	July 20	1003	284	18	180
Taber, Freeman A., Boston, Mass. Lamp	236,108	Dec. 28	1300	357	18	1520
Tabler, John H., assignor of one-half interest to J. M. Hoeker, Lexington, Ky. Spring-motor for operating churns, &c.	229,926	July 13	488	136	18	89

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Taber, Byron D., Wilson, N. Y. Churn-power.....	230,084	July 13	658	184	18	116
Taft, Frank S., Middlesex, N. Y., assignor of one-fourth to A. V. Reed, Washington, D. C. Machine for cutting printers' leads, &c.....	233,894	Nov. 2	77	20	18	1000
Taft, George H., assignor of one-half interest to C. L. and S. F. Leonard, Grafton, Mass. Process and apparatus for changing the bearing year of fruit-trees.....	227,074	Apr. 27	1119	308	17	962
Taft, Gustavus E., assignor to Whitin Machine Works, Whitinsville, Mass. Spinning-frame spindle.....	225,181	Mar. 2	224	63	17	495
Taft, Gustavus E., assignor to Whitin Machine Works, Whitinsville, Mass. Carding-machine.....	233,576	Oct. 19	969	267	18	913
Taft, Stephen C., and F. Darling, Franklin, Mass. Tube-cleaner.....	230,588	July 27	1298	366	18	235
Taggart, James M., Kansas City, Mo. Adjustable chair.....	231,631	Aug. 24	1185	{ 331 332 }	18	458
Tainter, Andrew, <i>et al.</i> (See Parker, Thomas, assignor.)						
Tainter, Jeremiah B., <i>et al.</i> (See Parker, Thomas, assignor.)						
Tainter, Sumner. (See Bell and Tainter.)						
Tainter, Sumner, Watertown, Mass. Telephonic call-register.....	229,495	June 29	1609	443	17	1498
Tainter, Sumner, Watertown, Mass. Selenium-cell.....	235,590	Dec. 14	656	186	18	1398
Tait, Felix B., <i>et al.</i> (See Simpson, George S., assignor.)						
Tait, Joseph S., <i>et al.</i> (See Simpson, George S., assignor.)						
Tait, William J. (See Gordon and Tait.)						
Talbot, Alphens J. (See Anderson and Talbot.)						
Talbot, Archie L. (See Brackett and Bailey, assignors.)						
Talbot, Frederick J. (See Ibbotson and Talbot.)						
Talbot, Zephaniah, Holliston, Mass. Shoe-nail.....	228,417	June 1	284	80	17	1272
Talbutt, Allen. (See Crowell and Talbutt.)						
Talbott, Sylvanus J., Milford, N. H. Work-box.....	227,858	May 18	887	252	17	1143
Talcott, Caleb M., <i>et al.</i> (See Mervesp, John J., assignor.)						
Talcott, Caleb M., Hartford, A. W. C. Williams, Brookfield, and G. J. Capewell, Cheshire, Conn. Horseshoe-nail.....	226,254	Apr. 6	119	33	17	767
Talley, Jesse R., B. B. and G. W. Bast, Jackson, Mo. Washing-machine.....	231,119	Aug. 10	602	171	18	352
Talley, John F., and J. M. Wadlington, Uptonville, Ky. Wagen-brake.....	225,891	Mar. 23	1073	307	17	670
Tallman, John C., New York, N. Y., assignor to L. C. Warner. Manufacture of corsets. (Reissue).....	9,137	Mar. 30	1404	395	17	736
Tallman, John C., Bridgeport, Conn., assignor to L. C. Warner, New York, N. Y. Corset.....	226,805	Apr. 20	771	215	17	896
Tallman, John C., assignor to L. C. Warner, New York, N. Y. Corset.....	226,806	Apr. 20	772	215	17	896
Tallman, Stephen P., Dunellen, N. J. Stock-car.....	226,131	Mar. 30	1377	388	17	731
Tallman, Stephen P., Dunellen, N. J. Automatic car-brake.....	235,916	Dec. 28	1070	296	18	1483
Tallman, Timothy T. (See Thomas, John J., assignor.)						
Tally, Thomas J., Rockport, Tex., assignor to himself and J. J. Welden. Rotary plow.....	229,200	June 22	1252	344	17	1441
Tangeman, William A., Lockland, Ohio. Target.....	225,734	Mar. 23	896	261	17	641
Tangen, Andy E., Bismarck, Dak. Ter. Fastening for tool-handles.....	224,244	Feb. 3	305	89	17	254
Tanner, D. N. (See Pridgen, William A., assignor.)						
Tanner, George, Freetown, N. Y. Lactometer.....	231,737	Aug. 31	1323	372	18	486
Tansey, James P. (See Nickerson and Tansey.)						
Tansley, Thomas, Jr., <i>et al.</i> (See Hamilton, Thomas H., assignor.)						
Tapley, Fred F., Lynn, and C. H. Porter, East Stoughton, assignors, by mesne assignments } to Standard Measuring Machine Company, Boston, Mass. Device for automatically } measuring the superficial area of sides of leather. (Reissue).....	9,204	May 18	911	{ 259 260 }	17	1147
Tapley, Jesse F., Springfield, Mass. Writing-tablet.....	224,806	Feb. 24	993	281	17	412
Taplin, Rice & Co. (See Wellhouse, George, assignor.)						
Taplin, Rice & Co. (See White, Nathan D., assignor.)						
Tappan, Samuel F., San Francisco, Cal. Power steering apparatus for vessels.....	224,364	Feb. 10	453	{ 130 131 }	17	297
Tarbox, Charles W., New York, N. Y. Railway-switch.....	224,054	Feb. 3	97	28, 29	17	219
Tarr, John B., Fairhaven, Mass. Rail-chair.....	227,456	May 11	428	124	17	1058
Tash, George W., <i>et al.</i> (See Hutchins, George W., assignor.)						
Tasker, Stephen P. M., Philadelphia, Pa. Machine for polishing wire, &c.....	223,657	Jan. 20	551	148	17	117
Tasker, Stephen P. M., Philadelphia, Pa. Rolling-mill.....	228,841	June 15	853	233	17	1375
Tassey, Emily E., McKeesport, Pa. Siphon propeller-pump.....	230,723	Aug. 3	146	43	18	270
Tate, Isaac C., New London, Conn. Machine for punching horseshoe-nails.....	226,208	Apr. 6	74	19	17	759
Tate, James, Bradford, England. Electrical device for closing stop-valves.....	231,865	Aug. 31	1477	414	18	511
Tatham, Henry B., Jr., Philadelphia, Pa. Heat-regulating device for incubators.....	226,568	Apr. 13	490	138	17	839
Tatham, Henry B., Jr., Philadelphia, Pa. Incubator.....	230,086	July 13	659	184	18	116
Tatham, William P., Philadelphia, Pa. Balanced valve.....	229,773	July 6	303	84, 85	18	53
Tatum, Charles A., <i>et al.</i> (See Smith, Robert P., assignor.)						
Tavner, Robert W., assignor to H. H. Norrington, West Bay City, Mich. Faucet.....	231,246	Aug. 17	764	214	18	384
Tay, John I., Oakland, Cal. Stairway-elevator.....	227,459	May 11	430	125	17	1059
Taylor, Augustus E., New Britain, Conn. Coat-hook.....	223,963	Jan. 27	926	247	17	187
Taylor, Charles, assignor of one-half interest to G. H. Kendall, Montreal, Quebec, Canada. Mowing and reaping machine.....	225,663	Mar. 16	798	233	17	615
Taylor, Charles, assignor of one-half interest to G. H. Kendall, Montreal, Quebec, Canada. Traction-wheel.....	226,209	Apr. 6	75	19	17	759
Taylor, Charles A., Chicago, Ill. Cross-slatted trunk.....	225,497	Mar. 16	614	178	17	582
Taylor, Charles A., Chicago, Ill., assignor to J. H. Sessions, Bristol, Conn. Trunk-fastener.....	232,421	Sept. 21	668	185	18	649
Taylor, David E., Charlton, Mass. Clothes-pounder.....	235,107	Dec. 7	49	15	18	1289
Taylor, De Witt C. (See Swartz and Taylor.)						
Taylor, Edmund B., Deering, Me. Attachment for hat-pouncing machines.....	232,860	Oct. 5	76	22	18	751
Taylor, Edward. (See Martin and Taylor.)						
Taylor, Elbert C., assignor of one-half interest to W. W. Woodruff, Knoxville, Tenn. Nail-picker.....	223,410	Jan. 6	227	60	17	42
Taylor, Elihu B., <i>et al.</i> (See Pont, Addie M., assignor.)						
Taylor, Elmore W., Detroit, Mich. Advertising device.....	227,073	Apr. 27	1118	{ 307 308 }	17	962
Taylor, Enoch L., Pennsburg, Pa. Car-wheel.....	234,502	Nov. 16	836	223	18	1142
Taylor, Eugene H. (See Gooding and Taylor.)						
Taylor, Francis D., Aston, near Birmingham, England. Wash-boiler.....	231,507	Aug. 24	1046	294	18	437
Taylor, Francis M., Macon, Mo. Fruit-picker.....	231,373	Aug. 17	893	252	18	405
Taylor, Frank R., Mount Vernon, N. Y. Pedestal for coffins.....	236,109	Dec. 28	1301	357	18	1520
Taylor, Gamaliel, De Witt, Mo. Machine for operating rock-drills and earth-augers.....	228,418	June 1	255	80, 81	17	1272
Taylor, George, assignor of one-half interest to J. A. Hurd, Lynn, Mass. Boot and shoe.....	227,318	May 4	259	75	17	1020
Taylor, George C., J. V. White, and M. R. Morris, Glenville, Ky. Corn-planter.....	229,018	June 22	1063	289	17	1414
Taylor, Henry E. (See Eaton, George S., assignor.)						
Taylor, Hecate H., Oakland, Cal. Ore-stamp.....	223,823	Jan. 27	756	202	17	160

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Taylor, Isaac. (See Barlow and Taylor.)						
Taylor, James, Luzerne, N. Y. Paper-pulp machine.	229,201	June 23	1253	{ 344 345 }	17	1441
Taylor, James, assignor of one-sixth interest to J. Caldwell, Louisville, Ky. Fertilizer-drill.	231,374	Aug. 17	894	252	18	405
Taylor, James, assignor to G. E. Boynton, Providence, R. I. Manufacture of flexible tubes.	231,736	Aug. 31	1322	372	18	486
Taylor, James A., East Hamburg, N. Y. Truck.	230,676	Aug. 3	97	28	18	262
Taylor, James A., East Hamburg, N. Y. Boiler for cooking fruit.	232,154	Sept. 14	325	93	18	585
Taylor, James A., East Hamburg, N. Y. Stripping fruit in cans.	233,895	Nov. 2	79	21	18	1000
Taylor, James H. H., Lawrence, Mass. Car brake and starter.	230,506	July 27	1210	341	18	220
Taylor, James K., and H. G. Burgess, Boston, Mass. Fire-box for locomotives.	232,780	Sept. 28	1028	298	18	727
Taylor, James S., San Francisco, Cal. Can for baking-powder.	226,804	Apr. 20	770	215	17	896
Taylor, John E., Springfield, Mass., assignor to Taylor, Nichols & Co. Printing attachment for paper-ruling machines. (Reissue.)	9,141	Apr. 6	261	77	17	794
Taylor, John L., Las Vegas, New Mex. Ter. Telegraph-pole.	230,085	July 13	658	184	18	116
Taylor, John M., assignor to himself and W. Taylor, Hartford, Conn. Rotary pump.	223,684	Jan. 20	584	157	17	122
Taylor, John N., assignor to Knowles, Taylor & Knowles, East Liverpool, Ohio. Hinge for earthenware or glassware.	227,137	May 4	57	16	17	987
Taylor, Joseph H., assignor to Crystal Burial Case Company, Orrville, Ohio. Burial-casket.	223,776	Jan. 20	682	183	17	138
Taylor, Joseph S., and S. W. Challen, Birmingham, England. Bracket and bearing for shafting and shafts.	231,866	Aug. 31	1478	{ 415 416 }	18	511
Taylor, Mary A., New York, N. Y. Sleeve-pattern.	234,821	Nov. 23	1251	336	18	1216
Taylor, Mathias E. (See Jordan and Taylor.)						
Taylor, Morse K., United States Army, San Antonio, Tex. Wire-cloth fan for the destruction of insects.	227,706	May 18	717	203	17	1116
Taylor, Newton S., Chicago, Ill. Trace-hook.	229,019	June 22	1064	290	17	1414
Taylor, Newton W. (See Appel, Daniel, assignor.)						
Taylor, Nicholas, Troy, N. Y. Starching-machine.	233,124	Oct. 12	409	113	18	812
Taylor, Nichols & Co. (See Taylor, John E., assignor.) (Reissue.)						
Taylor, N. W., et al. (See Patterson, William, assignor.)						
Taylor, N. W., et al. (See Patterson, William H., assignor.)						
Taylor, N. W. (See Pettie, Simon E., assignor.)						
Taylor, Orphana, Caledonia, Ohio. Medical compound for ague.	231,120	Aug. 10	604	.....	18	352
Taylor, Samuel H., Kansas City, Mo. Sulky-plow.	235,313	Dec. 7	293	83	18	1330
Taylor, Theodore F., Brooklyn, and G. Smith, Astoria, N. Y. Automatic telegraph.	234,347	Nov. 9	630	172	18	1100
Taylor, Thomas, et al. (See Glover, William H., assignor.)						
Taylor, Thomas B., Mount Meigs, Ala. Machine for deepening river-channels.	227,595	May 11	585	167	17	1085
Taylor, Thomas B., Mount Meigs, Ala. Bale-tie.	234,822	Nov. 23	1252	{ 336 337 }	18	1217
Taylor, Thomas S., Fort Wayne, Ind. Railway-switch.	224,310	Feb. 10	392	110	17	288
Taylor, Warren H. (See Stockwell and Taylor.)						
Taylor, Warren H., assignor to Yale Lock Manufacturing Company, Stamford, Conn. Apparatus for slotting metal.	233,952	Nov. 2	145	39	18	1011
Taylor, Warren H., assignor to Yale Lock Manufacturing Company, Stamford, Conn. Apparatus for slotting metal.	233,953	Nov. 2	146	39	18	1011
Taylor, Warren H., assignor to Yale Lock Manufacturing Company, Stamford, Conn. Apparatus for slotting metal.	234,089	Nov. 2	318	87, 88	18	1039
Taylor, Warren H., assignor to Yale Lock Manufacturing Company, Stamford, Conn. Lock-cylinder.	234,213	Nov. 9	481	131	18	1075
Taylor, William. (See Taylor, John M., assignor.)						
Taylor, William, assignor to himself and G. W. Robertson, Peekskill, N. Y. Repairing metallic patterns.	229,064	June 22	1110	302	17	1421
Taylor, William H. O., and J. W. Wailes, Panteg, county of Monmouth, England. Apparatus for casting metals.	224,245	Feb. 3	306	89	17	254
Tayman, Benjamin J., Philadelphia, Pa., assignor, by mesne assignments, to G. H. P. Flagg. Machine for trimming the soles of boots and shoes. (Reissue.)	9,073	Feb. 10	613	177	17	324
Tayman, Benjamin J., and J. Benner, Philadelphia, Pa., assignors, by mesne assignment, to G. H. P. Flagg, Boston, Mass. Machine for forming imitation fair-stitches to the edges of boot and shoe soles.	234,503	Nov. 16	837	224	18	1142
Tayman, Benjamin J., and J. Benner, Philadelphia, Pa., assignors, by mesne assignment, to G. H. P. Flagg, Boston, Mass. Machine for burnishing the edges of soles.	234,504	Nov. 16	838	224	18	1142
Teague, Charles E. (See Winter, David T., assignor.)						
Teas, Andrew, Newark, N. J. Machine for cutting leather, pasteboard, &c.	235,588	Dec. 14	653	185	18	1398
Teas, Noble. (See Cahoon and Teas.)						
Teasdale, James M., Wyoming, N. Y., assignor of one-half interest to T. B. Knapp, Howell, Mich. Churn-dasher.	229,496	June 29	1611	444	17	1498
Teasdale, James M., Howell, Mich. Fruit-drier.	233,643	Oct. 26	1069	297	18	940
Teass, John R., St. Albans, V. Va. Straw-cutter.	229,202	June 22	1254	345	17	1442
Teese, Robert W., Parker's Landing, Pa. Velocipede.	225,771	Mar. 23	943	273	17	648
Teetor, Abe L., Hagerstown, Ind. Machine for dressing millstones.	232,861	Oct. 5	77	22	18	752
Teetzel, John W., Benton Harbor, Mich. Well-boring machine.	227,859	May 18	887	{ 252 253 }	17	1143
Teetzel, John W., Benton Harbor, Mich. Device for raising tiles.	232,089	Sept. 7	254	70	18	565
Tefft, Emily A., East Otto, N. Y. Electrical therapeutical appliance.	234,348	Nov. 9	631	172	18	1100
Tegnander, Courad S., Gothenburg, Sweden. Rotary engine.	227,319	May 4	259	76	17	1020
Telfer, Gavin, Detroit, Mich. Tool-handle.	235,043	Nov. 30	1526	411	18	1269
Telschow, Robert, Berlin, Prussia, Germany. Method of and apparatus for making dentures.	231,375	Aug. 17	896	{ 252 253 }	18	405
Temme, Christian, St. Louis, Mo. Stove-leg fastening.	233,382	Oct. 19	743	203	18	876
Temple, Ansel F., Montague, Mich., assignor to W. F. Temple, Jr., Boston, Mass. Machine for making fire-kindlers.	226,569	Apr. 13	491	138	17	839
Temple, W. F., Jr. (See Temple, Ansel F., assignor.)						
Temples, Ambrose, Irwinton, Ga. Cotton-press.	226,132	Mar. 30	1378	{ 388 389 }	17	731
Templin, Thomas T., Maysville, Ky. Plow.	232,315	Sept. 14	523	145	18	620
Tennant & Hattersley. (See Woodruff, William P. and C. H., assignors.)						
Tenney & Brother, C. H., et al. (See Sargent, Calvin J., assignor.)						
Tenney, Cornelius, and G. W. Walton, assignors of one-third interest to W. C. Peace, Brooklyn, N. Y. Shutter-fastener.	224,619	Feb. 17	757	214	17	658
Tenney, James F., et al. (See Cook, George W., assignor.)						
Tenney, Nason M. (See Bunnell and Tenney.)						
Terman, James W., Mansfield, Ohio, assignor to S. L. Nash and F. H. Robbins. Corn-harvester.	231,867	Aug. 31	1485	{ 416 417 }	18	511
Terne, Bruno, assignor of three-fourths interest to J. P., E. P., and D. Bangh, Philadelphia, Pa. Treatment of sewage.	228,955	June 15	971	.....	17	1392
Terrell, Theodore, and I. U. Travis, Yonkers, N. Y. Spool-case for sewing-machines.	225,437	Mar. 9	535	154	17	558



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Terrill, George, Poughkeepsie, N. Y. Carpet-stretcher and tack-driver .....	226,634	Apr. 20	593	165	17	867
Terry, Andrew J., San Francisco, Cal. Flour-bolt .....	223,554	Jan. 13	421	113	17	86
Terry, Edwin M., Kalamazoo, Mich. Ironing-board .....	223,615	Jan. 13	495	133	17	98
Terry, George W., Prescott, Ark. Calculator for postage-stamps .....	226,807	Apr. 20	772	215	17	896
Terry, Ira C., St. Louis, Mo. Car-truck .....	228,694	June 8	629	171	17	1334
Terry, James D., Terryville, Tex. Envelope .....	225,540	Mar. 16	665	195	17	591
Terry, Le Grand, Dundee, N. Y. Door-hanger .....	232,659	Sept. 28	943	259	18	702
Terry, William T., and E. A. Dyke, North Adams, Mass. Burglar-alarm .....	228,954	June 15	970	264	17	1392
Teter, William L., Philadelphia, Pa. Middlings-purifier .....	224,969	Feb. 24	1165	333	17	440
Teter, William L., Philadelphia, Pa. Hand-tool for dressing millstones .....	224,970	Feb. 24	1166	333	17	440
Tetu, Alphouse, Sedalia, Mo. Vehicle-spring .....	232,658	Sept. 28	941	259	18	702
Teven, Louis, New York, N. Y. Fire-escape .....	229,561	July 6	65	18	18	18
Tevis, James H., Austin, Tex. Windmill .....	224,247	Feb. 3	310	90	17	254
Thalman, Anton. (See Neff and Thalman.) .....						
Thamm, Robert, Oshkosh, Wis. Water-power .....	235,314	Dec. 7	294	83	18	1330
Thatcher, Walter S., Waverly, N. Y. Umbrella-holder for vehicles .....	235,828	Dec. 21	937	262	18	1454
Thayer, Charles E., Minneapolis, Minn. Apparatus for catching dust generated in mid- dlings-purifiers, millstone-curbs, &c. ....	231,376	Aug. 17	898	253	18	406
Thayer, George W., Lake City, Minn. Attachment for portable-engine furnaces .....	228,489	June 8	399	109	17	1290
Thayer, Hiram H., New York, N. Y. Necktie-shield .....	227,190	May 4	120	35	17	997
Thayer, James M., Randolph, Mass. Bag-tie buckle .....	232,556	Jan. 13	423	113	17	87
Thayer, James M., Randolph, Mass. Elevator .....	229,203	June 22	1256	345	17	1442
Thayer, Jesse B. (See Cook and Thayer.) .....						
Thayer, Jesse B., and H. E. Cook, River Falls, Wis. Magnetic grain-separator .....	225,029	Mar. 2	58	16	17	466
Thayer, Lemuel. (See White, James W., assignor.) .....						
Thayer, Martin D., Livonia, N. Y. Windmill .....	229,774	July 6	305	85	18	53
Thayer, William S., Owego, N. Y. Combined check-hook and trace-carrier .....	231,941	Sept. 7	75	19	18	536
Thecker, Sarah E., Georgetown, D. C. Boot and shoe .....	231,632	Aug. 24	1187	332	18	458
Theobald, George, Hartford, Conn. Saddle-loop .....	233,411	Jan. 6	229	60	17	42
Theobald, John, Archbold, Ohio. Harvester-reel .....	232,155	Sept. 14	326	93	18	585
Therien, Joseph H., Orland, Cal. Windmill .....	230,209	July 20	824	233	18	152
Theurer, John, Hamilton, Ohio. Trapeze and tight-rope accessory .....	232,216	Sept. 14	408	113	18	599
Thibalt, Henry, and T. Hawkins, New York, N. Y. Rotary engine .....	230,907	Aug. 10	372	107 108 227 228	18	315
Thielepape, Wilhelm C. A., Chicago, Ill. Station-indicator .....	235,715	Dec. 21	807		18	1431
Thiell, William H. (See Hayden and Thiell.) .....						
Thierman, John H., Louisville, Ky. Apparatus for aging liquors .....	231,377	Aug. 17	901	253	18	406
Thiers, William F., assignor of one-half interest to B. J. Dwyer, New York, N. Y. Venti- lating apparatus .....	223,777	Jan. 20	682	184	17	138
Thies, Friedrich, Bissendorf, Hanover, Germany. Vehicle for paints .....	226,372	Apr. 6	247		17	791
Thissell, Earl A., et al. (See Eaton, Charles S., assignor.) .....						
Thoman, William W., Camden, N. J. Hat-body .....	234,505	Nov. 16	839	225	18	1143
Thomas, Charles L. (See Magner and Thomas.) .....						
Thomas, Charles W., Belleville, Ill. Car-ventilator .....	224,248	Feb. 3	311	90	17	254
Thomas, Daniel, Cincinnati, Ohio. Stove-foot fastener .....	224,312	Feb. 10	395	111	17	288
Thomas, David. (See Reynolds and Thomas.) (Reissue.) .....						
Thomas, David and S., Trowell Forge, England, assignors of two-thirds interest to T. O. Hampton, Joliet, Ill. Fix or fettling for puddling-furnaces .....	231,121	Aug. 10	604		18	352
Thomas, Eddy T., New York, N. Y. Sewing-machine .....	225,954	Mar. 30	1175	333 334	17	699
Thomas, Eddy T., New York, N. Y., assignor to Gold Medal Sewing Machine Company, Orange, Mass. Sewing-machine .....	230,677	Aug. 3	99	28	18	262
Thomas, Eddy T., New York, N. Y., assignor to Gold Medal Sewing Machine Company, Orange, Mass. Sewing-machine .....	230,972	Aug. 10	440	126	18	325
Thomas, Eddy T., New York, N. Y. Sewing-machine .....	234,628	Nov. 16	1003	267	18	1171
Thomas, Edward, assignor of one-half interest to J. E. Thomas, Newark, Ohio. Car-axle lubricator .....	229,065	June 22	1111	302	17	1421
Thomas, George C., assignor to Scovill Manufacturing Company, Waterbury, Conn. But- ton .....	230,361	July 20	1004	285	18	180
Thomas, George N., New Haven, Conn. Machine for pointing pickets .....	233,896	Nov. 2	80	21	18	1000
Thomas, George W., Bear River, Nova Scotia. Axle-box .....	224,971	Feb. 24	1167	333	17	440
Thomas, H. (See Bartlett, George S., assignor.) .....						
Thomas, Henry. (See Perkins, Clayton H., assignor.) .....						
Thomas, James, Catasauqua, Pa. Hydraulic motor .....	226,133	Mar. 30	1380	389	17	731
Thomas, James A., and F. E. Kimbley, Hartford, Ky. Ointment .....	230,678	Aug. 3	100		18	262
Thomas, James E. (See Thomas, Edward, assignor.) .....						
Thomas, James E., West Bay City, Mich. Table .....	225,182	Mar. 2	225	63	17	495
Thomas, James R., assignor to himself and T. S. Paul, Calpella, Cal. Eye for hoes and other tools .....	228,419	June 1	287	81	17	1273
Thomas, James R., Edom, Tex. Grave-cover .....	232,570	Sept. 21	829	230	18	676
Thomas, John H., Springfield, Ohio. Horse-rake. (Reissue.) .....	9,373	Sept. 7	271	74	18	569
Thomas, John J. (See Mills, Willard F., assignor.) .....						
Thomas, John J., assignor of one-half interest to T. T. Tallman, Selma, Ala. Locomotive axle-box .....	226,571	Apr. 13	493	139	17	839
Thomas, John J., and W. F. Mills, Wellington, Ohio; said Mills assignor to said Thomas. Sawing-machine .....	233,126	Oct. 12	413	113	18	812
Thomas, Lafayette, Marshall, Mo. Adjustable wrist-pin .....	234,090	Nov. 2	319	88	18	1039
Thomas, Leopold, Hoboken, N. J. Steam-engine .....	225,183	Mar. 2	225	64	17	495
Thomas, Levi H., Chicago, Ill. Sleeve and cuff button .....	233,299	Oct. 12	621	171	18	849
Thomas, Lyman A., Middleborough, Mass. Lid-support .....	235,315	Dec. 7	295	83	18	1330
Thomas, Nixon, Dupont, Ind. Washing-machine .....	228,139	May 25	1229	349	17	1209
Thomas, Samuel. (See Bright and Thomas.) .....						
Thomas, Samuel. (See Thomas, David and S.) .....						
Thomas, Samuel T., Boston, Mass. Loom .....	236,110	Dec. 28	1302	357 358 359	18	1520
Thomas, William B., Elmira, N. Y. Spring-vehicle .....	226,371	Apr. 6	247	72	17	791
Thomas, William H., Louisville, Ky. Rack for tiering barrels .....	232,569	Sept. 21	828	229	18	676
Thomer, Josef, and F. Köhazy, Kaschau, Austria. Seal-lock .....	224,115	Feb. 3	168	47, 48	17	231
Thompson, Asa F., New York, N. Y. Toy wagon and cart .....	227,322	May 4	264	77	17	1021
Thompson, Charles D., Chicago, Ill. Crimping-pin .....	234,629	Nov. 16	1004	268	18	1171
Thompson, Charles S., assignor of one-half interest to J. W. Snyder, Philadelphia, Pa. Vapor-inhaling pad .....	233,954	Nov. 2	147	40	18	1011
Thompson, Cyrus H., Mount Pleasant, Mich. Horse-detacher .....	232,571	Sept. 21	829	230	18	677

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Thompson, Edward, New Orleans, La. Manufacture of building or wall paper.....	235,178	Dec. 7	140	.....	18	1305
Thompson, Elizabeth. (See Coloney, Myron, assignor.)						
Thompson, Frederick, and W. H. Williamson, Wakefield, Great Britain. Apparatus for purifying and assorting semolina, &c.....	226,808	Apr. 20	773	216	17	896
Thompson, George B., Pittston, Pa. Slate-frame.....	227,662	May 18	664	189	17	1108
Thompson, George B., Pittston, Pa. Covered vessel.....	228,696	June 8	631.	171	17	1334
Thompson, George B., Pittston, Pa. Means for tightly closing doorways, &c.....	234,895	Nov. 30	1344	362	18	1239
Thompson, George C. (See Gleason, George R., assignor.)						
Thompson, George H., Frostburg, Md. Brick press-box.....	231,508	Aug. 24	1048	294	18	437
Thompson, George R., Quincy, Ill. Apple-parer.....	233,955	Nov. 2	149	40	18	1011
Thompson, George W. F., and F. A. Hayward, Omro, Wis. Dash-board foot for vehicles.....	226,941	Apr. 27	953	264	18	936
Thompson, Gilbert, assignor to J. C. Lang, Washington, D. C. Bill-file.....	235,394	Dec. 14	412	116	18	1358
Thompson, Henry, assignor of one-fourth to H. Kern, Brooklyn, N. Y. Milk-can.....	235,044	Nov. 30	1526	411	18	1269
Thompson, Henry A., Farmington, Me. Wrench.....	234,091	Nov. 2	319	88	18	1039
Thompson, Henry B., assignor to I. Townsend, Philadelphia, Pa. Tent-slip.....	234,896	Nov. 30	1348	362	18	1239
Thompson, Henry G., <i>et al.</i> , trustees. (See Fairfield, Hadley P., assignor.)						
Thompson, Henry G. (See Johnson, Moses C., assignor.)						
Thompson, James M. (See Napier and Thompson.)						
Thompson, James M., San Francisco, Cal. Ore-stamp mill.....	227,189	May 4	118	35	17	997
Thompson, James W., Crockett, Tex. Game-board.....	229,206	June 22	1260	346	17	1443
Thompson, James W., and J. Lloyd, Anstin, Tex. Seed-planter and cultivator.....	232,911	Oct. 5	141	37	18	761
Thompson, Jesse G., Clarion, Pa. Millstone-balancing device.....	227,321	May 4	264	77	17	1021
Thompson, Jesse G., Clarion, Pa. Nut-lock.....	227,663	May 18	665	189	17	1108
Thompson, John. (See Fisher, Johann, assignor.)						
Thompson, John, Victoria, British Columbia, Canada. Kite.....	225,306	Mar. 9	392	114	17	535
Thompson, John, London, England. Nursing-bottle.....	227,075	Apr. 27	1119	308	17	962
Thompson, John, Oakland, Md. Pill-machine.....	227,320	May 4	262	77	17	1021
Thompson, John A., Chicago, Ill. Counterfeit-coin detector.....	224,807	Feb. 24	993	281	17	412
Thompson, Joseph W., assignor of one-half interest to Buckeye Engine Company, Salem, Ohio. Lubricator for steam-engines.....	223,412	Jan. 6	230	61	17	42
Thompson, Leander H. (See Bailey and Thompson.)						
Thompson, Lester P., Phelps, N. Y. Plow.....	231,378	Aug. 17	903	254	18	407
Thompson, Nathan, Brooklyn, N. Y. Bolt or strap fastener.....	228,697	June 8	632	172	17	1334
Thompson, Nathan, Brooklyn, N. Y. Fastening for doors and windows.....	228,698	June 8	634	172	17	1334
Thompson, Norman C., <i>et al.</i> (See Fleniken, Theodore M., assignor.)						
Thompson, Oliver E. (See Davis, John H., assignor.)						
Thompson, Otis D., Elkhart, Ind. Wind-wheel.....	235,470	Dec. 14	513	148	18	1375
Thompson, Perley & Waite. (See Patten, George M., assignor.)						
Thompson, Perley & Waite. (See Stevens, Asher B., assignor.)						
Thompson, Perry, assignor to C. C. Bradley, Syracuse, N. Y. Harvester-rake.....	229,284	June 29	1352	371	17	1464
Thompson, Presly C., Stickleyville, Va. Stump-puller.....	229,776	July 6	306	85	18	53
Thompson, Robert H., Brooklyn, N. Y. Wrapper or envelope for bottles, &c.....	229,775	July 6	305	85	18	53
Thompson, Rosewell, Bridgeport, Conn. Machine for swaging sewing-machine-needle blanks.....	234,931	Nov. 30	1386	373	18	1245
Thompson, Salmon, Fremont township, Buchanan county, (Masonville P. O., Delaware county,) Iowa. Barbed-wire-fence.....	233,713	Oct. 26	1148	320	18	953
Thompson, Samuel R. (See Staples, John H., assignor.)						
Thompson, Samuel R., Brookline, and S. W. Johnson, West Medford, Mass. Bark-cutting machine.....	229,205	June 22	1258	346	17	1442
Thompson, Samuel R., Brookline, Mass. Mill for manufacturing and sifting meal, &c.....	233,577	Oct. 19	970	267	18	914
Thompson, William A. (See Burritt, Harvey H., assignor.)						
Thompson, William H., Cleveland, Ohio. Differential-pulley apparatus.....	225,953	Mar. 30	1174	333	17	699
Thompson, William M., Jr., Barnhart's Mills, assignor to J. W. Baker and S. P. Miles, Petrolia, Pa. Piston-packing.....	228,420	June 1	287	81	17	1273
Thompson, William P. (See Fox, Howard B., assignor.)						
Thoms, John B., Baltimore, Md. Apparatus for concentrating sugar-cane juice.....	226,255	Apr. 6	120	34	17	767
Thomsen, Henry F., Waterloo, N. Y. Electrical indicator and recorder.....	232,156	Sept. 14	327	93	18	586
Thomson, Alexander, Ames, Iowa. Wind-engine.....	228,695	June 8	629	171	17	1334
Thomson, Elihu. (See Houston and Thomson.)						
Thomson, Elihu, and E. J. Houston, Philadelphia, Pa. Dynamo-electric machine.....	223,557	Jan. 13	423	113	17	87
Thomson, Elihu, and E. J. Houston, Philadelphia, Pa. Armature and commutator for magnetic electric machines.....	223,658	Jan. 20	552	149	17	117
Thomson, Elihu, and E. J. Houston, Philadelphia, Pa. Automatic adjuster for commutator-brushes on magneto-electric machines.....	223,659	Jan. 20	554	149	17	117
Thomson, Elihu, and E. J. Houston, Philadelphia, Pa., assignors to American Electric Company, New Britain, Conn. Dynamo-electric machine.....	232,910	Oct. 5	138	36	18	761
Thomson, Elihu, Philadelphia, Pa., assignor to American Electric Company, New Britain, Conn. Dynamo-electric machine.....	233,047	Oct. 5	302	84	18	788
Thomson, Frank M., Jersey City, N. J. Pistol-holster.....	229,208	June 22	1262	347	17	1443
Thomson, James E., Buffalo, N. Y. Sealing press, punch, &c.....	228,572	June 8	498	133	17	1314
Thomson, James E., Buffalo, N. Y. Mail-lock label-holder.....	228,573	June 8	499	134	17	1314
Thomson, Joseph. (See Thomson, William Y., assignor.)						
Thomson, William, Glasgow College, North Britain. Mariner's compass.....	232,781	Sept. 28	1089	{ 298 } { 299 }	18	727
Thomson, William Y., Oyster Bay, assignor to J. Thomson, New York, N. Y. Cooking-vessel.....	225,246	Mar. 9	313	89	17	523
Thorndike, Charles W., <i>et al.</i> (See Cutter, William P., assignor.)						
Thorne, Joseph, Port Richmond, N. Y. Type setting and distributing machine.....	232,157	Sept. 14	330	93, 94	18	586
Thornton, John T., Farragut, Iowa, assignor to Aultman & Taylor Company, Mansfield, Ohio. Thrashing-machine. (Reissne).....	9,264	June 22	1282	352	17	1446
Thornton, William, Trent, Iowa. Grain-tally.....	226,635	Apr. 20	594	165	17	867
Thornton, William C., Castle Rock, Mo. Combined fruit-canner and weighing-scales.....	229,204	June 22	1257	345	17	1442
Thornton, William M. K., St. Louis, Mo. Spark-arrester.....	229,207	June 22	1261	346	17	1443
Thorp, Samuel. (See Andrus, Newell P., assignor.)						
Thorp, William A. (See Bailey, John C., assignor.)						
Thorpe, Charles N., <i>et al.</i> (See Mueller, Theodore, assignor.)						
Thorpe, Robert C. (See Burbridge, Thorpe, and Oakley.)						
Threlfall, Thomas, San Francisco, Cal. Machine for separating and cleaning vegetable fiber.....	235,108	Dec. 7	50	15, 16	18	1289
Throne, Michael A., Chicago, Ill. Spring bed-bottom.....	229,020	June 22	1064	290	17	1414
Throop, Gardner E., Auburn, N. Y. Flour-dressing machine.....	232,379	Sept. 21	616	169	18	641
Thuemmler, Edward, Little Rock, Ark. Thermo-dynamic engine.....	226,570	Apr. 13	492	139	17	839
Thuemmler, Edward, Little Rock, Ark. Air-engine.....	232,660	Sept. 28	943	{ 259 } { 260 }	18	702

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Thuemmler, Edward, Little Rock, Ark. Air-engine.....	233,125	Oct. 12	412	113	18	812
Thunder Powder Company. (See Heick, William, assignor.)						
Thurber, William H., Clyde, Wis. Fifth-wheel.....	233,897	Nov. 2	81	21	18	1000
Thurston, Adnah, assignor of one-half interest to C. K. Gaheart, Oxford township, Erie county, Ohio. Meat-press.....	227,860	May 18	889	253	17	1143
Thurston, Charles H., Marlborough, N. H. Sewing-machine.....	233,300	Oct. 12	622	172	18	849
Thurston, Robert H., Hoboken, N. J. Machine for testing lubricants.....	230,158	July 20	766	213	18	142
Thurston, Robert H., Hoboken, N. J. Testing-machine.....	233,712	Oct. 26	1148	319	18	953
Thuston, Lyeurgus, assignor of one-half interest to W. L. Miller, Findlay, Ohio. Wood-bit.....	228,421	June 1	288	81	17	1273
Tibbits, John B. (See Ball, Clinton M., assignor.)						
Tice, Moses B., Newark, N. J., and N. O'Connell, Brooklyn, N. Y. Finishing leather.....	225,772	Mar. 23	944		17	648
Tichenor, Anson C., San Francisco, Cal., assignor of one-half interest to D. W. Benldin, Se-dalia, Mo. Obtaining gold from its ores.....	228,140	May 25	1230		17	1209
Tichenor, David H., Newark, N. J. Reservoir-well.....	233,714	Oct. 26	1149	320	18	953
Tichenor, David H., Newark, N. J. Well.....	234,214	Nov. 9	481	131	18	1075
Ticknor, George, and O. Bebec, Perrysburg, N. Y. Wire-fence post.....	234,440	Nov. 16	765	206	18	1131
Tidd, James S. S., and F. O. Cladin, Westborough, Mass. Adjustable handle for kettles.....	230,447	July 27	1146	322	18	209
Tiemann, Peter C. (See Fay, Francis A., assignor.)						
Tiesing, Frank W., and S. V. Kennedy, New Haven, Conn. Magazine fire-arm.....	225,664	Mar. 16	799	234	17	615
Tiesing, Frank W., New Haven, Conn. Magazine fire-arm.....	226,809	Apr. 20	774	216	17	897
Tiesing, Frank W., and S. V. Kennedy, New Haven, Conn. Magazine fire-arm.....	235,829	Dec. 21	938	262 263	18	1454
Tiffany, Albert R., assignor of one-half interest to J. J. Leland, Dayton, Ohio. Car-axle-box cover.....	226,463	Apr. 13	368	105	17	820
Tiffany & Co. (See Bogart, Albert H., assignor.)						
Tiffany, Joel, Chicago, Ill. Construction of refrigerating-rooms, &c.....	236,111	Dec. 28	1307	360	18	1521
Tiffany, Joseph B., New York, N. Y. Gas-regulator.....	233,048	Oct. 5	305	84	18	788
Tiffany, Nelson O., assignor to O. F. Tiffany, Buffalo, N. Y. Tray for fruit-driers.....	230,507	July 27	1212	341	18	220
Tiffany, Oscar F. (See Tiffany, Nelson O., assignor.)						
Tiffany, Oscar F., Buffalo, N. Y. Apparatus for bleaching fruit, &c.....	235,589	Dec. 14	655	185 186	18	1398
Tilden, Harvey, and F. S. Guerber, Harrisburg, Pa. Balanced puppet-valve.....	229,341	June 29	1430	394	17	1474
Tilden, Henry, Kellogg, Iowa. Drier.....	232,572	Sept. 21	830	230 231	18	677
Tilden, Howard, Philadelphia, Pa., assignor of one-half interest to C. D. Hayward, New York, N. Y. Churn-dasher.....	223,413	Jan. 6	231	61	17	42
Tiller, John G., Ashland, Va. Oil-guard for car-axle boxes.....	235,917	Dec. 28	1072	297	18	1483
Tilley, John H., Newport, E. I. Transmitter for fire-alarm telegraphs.....	230,508	July 27	1212	341	18	220
Tillinghast, John A., Providence, R. I. Sand-band for carriage-axles.....	231,691	Aug. 31	1265	355	18	478
Tillinghast, Leonard, Providence, R. I. Manufacture of horn and shell goods.....	225,247	Mar. 9	314	89	17	523
Tillinghast, Leonard, Providence, R. I. Manufacture of goods made of hard rubber or simi-lar material.....	229,847	July 13	404	111	18	76
Tillman, John T., Spartanburg, S. C. Scale-beam.....	224,972	Feb. 24	1168	334	17	440
Tillmes, August, Philadelphia, Pa. Cartridge.....	227,191	May 4	121	35	17	997
Tilton, David. (See Nugent and Tilton.)						
Tilton, Ole, Pittsburg, Pa. Wash-boiler.....	228,230	June 1	82	25	17	1240
Tilton, Ole, Pittsburg, Pa. Washing-machine.....	235,395	Dec. 14	414	116	18	1358
Timanus, Edward T., Baltimore, Md. Refrigerator.....	236,112	Dec. 28	1308	360	18	1521
Timberlake, John B., Jackson, Mich. Detachable handle for dishes.....	230,362	July 20	1005	285	18	180
Timby, Theodore R., Nyack, N. Y. Cooking-vessel.....	224,492	Feb. 10	594	171	17	321
Timby, Theodore R., Nyack, N. Y. Ore-crusher.....	225,665	Mar. 16	801	234	17	616
Timken, Henry. (See Durie, William S., assignor.)						
Timken, Henry, St. Louis, Mo. Fifth-wheel.....	226,636	Apr. 20	595	166	17	867
Timlin, David J., Florissant, Mo. Car-axle box.....	227,457	May 11	429	124	17	1058
Timlin, David J., Florissant, Mo. Spark-arrester.....	234,349	Nov. 9	632	172	18	1100
Timmermann, Karl E., Senftenberg, Prussia. Burglar-alarm.....	228,490	June 8	400	109	17	1299
Timmons, Francis, Louisville, Ky. Curbing and guttering for sidewalks, &c.....	228,700	June 8	636	172	17	1335
Tine, Henry, Danbury, Conn. Carriage-pole.....	228,699	June 8	635	172	17	1335
Tingley, Albert H., Providence, R. I. Register-border.....	225,907	Mar. 23	1088	311	17	672
Tinkham, Samuel M., Taunton, Mass. Roller-skate.....	236,113	Dec. 28	1309	361	18	1522
Tinsley, George W. (See Hackman and Tinsley.)						
Tirrell, Jacob P. (See Pinkham, Tirrell, and Hill.)						
Tirrell, Jacob P., Somerville, assignor to G. F. Pinkham, Quincy, Mass. Electric gas-light-ing apparatus.....	230,589	July 27	1300	366	18	235
Tirrell, Jacob P., Somerville, assignor to G. F. Pinkham, Quincy, Mass. Electric gas-light-ing apparatus.....	230,590	July 27	1303	366	18	236
Tirrell, Jacob P., Lexington, Mass. Electric gas-lighting apparatus.....	232,661	Sept. 28	945	260	18	703
Tisdale, Charles D., Boston, Mass. Electric railway-signal.....	229,285	June 29	1354	371	17	1464
Tisdale, William P., Pass Christian, Miss. Dental forceps.....	233,817	Oct. 26	1261	352	18	973
Tisdal, Abner G., Lion, assignor to F. A. Klemm and E. Marx, New York, N. Y., S. Wolf, Washington, D. C., and M. Loth, Cincinnati, Ohio. Magnet-telephone.....	227,861	May 18	890	253	17	1143
Titus, Oliver C. (See Stroud and Titus.)						
Tobey, William H., Livonia, Mo. Gate.....	230,087	July 13	661	185	18	117
Tobey, William L. (See McKay and Tobey.)						
Tobias, Cyrrs, Freeport, Ill. Harness-crupper.....	233,715	Oct. 26	1150	320	18	953
Tocci, Felice, assignor to H. Herrmann, New York, N. Y. Book-case.....	228,141	May 25	1230	349	17	1209
Tocci, Felice, New York, N. Y. Fire-escape.....	233,578	Oct. 19	971	268	18	914
Todd, James, assignor, by mesne assignments, to C. G. Milner and J. H. Brown, Pittsburg, Pa. Wringer. (Reissue.).....	9,432	Oct. 26	1282	359	18	976
Todd, James W., Rochelle, N. Y. Sash-fastener.....	225,541	Mar. 16	666	195	17	591
Todd, John A., Sacramento, Cal. Photographic printing-frame.....	230,159	July 20	767	214	18	142
Todd, Lyman J., and A. Orme, Chicago, Ill. Water-motor.....	232,422	Sept. 21	670	185	18	649
Toellner, Adolph, Moline, Ill. Marine transshipment and overland transportation.....	223,685	Jan. 20	585	157	17	122
Toellner, Adolph, Milwaukee, Wis. Pump.....	230,836	Aug. 3	280	80	18	293
Toepfer, Frank. (See Toepfer, Wenzel and F.)						
Toepfer, Wenzel, Milwaukee, Wis. Malt-kiln.....	226,890	Apr. 27	892	248	17	927
Toepfer, Wenzel and F., Milwaukee, Wis. Grain-drier floor.....	233,301	Oct. 12	623	172	18	849
Toffler, Simon, New York, N. Y. Grater.....	230,679	Aug. 3	100	20	18	262
Toler, John, Newark, N. J. Furniture-caster.....	224,249	Feb. 3	312	90	17	255
Tolles, Willard C., Nashua, N. H. Implement for shocking corn.....	226,007	Mar. 30	1237	349	17	708
Tollner, Charles, Pulaski, N. Y. Speel-box.....	228,289	June 1	159	44	17	1252
Tollner, Hugo, Brooklyn, N. Y. Clamp for carrying school-books.....	224,250	Feb. 3	313	90	17	255

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Tolman, Edward F. (See Hill, Tolman, and Howland.)						
Tolman, Elijah. (See Hewitson and Tolman.)						
Tombow, John W., Massillon, Ohio. Nut-lock.....	234,350	Nov. 9	633	172	18	1100
Tomlinson, Everett S., Chicago, Ill. Shirt.....	226,464	Apr. 13	368	105	17	820
Tommasi, Ferdinando, Paris, France. Galvanic battery.....	227,076	Apr. 27	1120	308	17	962
Tommasi, Ferdinando, Paris, France. Electric lamp.....	227,596	May 11	586	168	17	1085
Tompkins, Abram G. (See Tompkins, Isaac and A. G.) (Reissue.)						
Tompkins, Beverly, St. Albans, W. Va. Hay-press.....	224,743	Feb. 17	884	{ 252 253 }	17	380
Tompkins, Frederick W., <i>et al.</i> (See Barlow, Elisha T., assignor.)						
Tompkins, Henry S., La Salle, N. Y. Cider-press.....	226,687	Apr. 20	640	180	17	876
Tompkins, Isaac and A. G., Brooklyn, assignors to E. G. Black, New York, N. Y. Machine for grinding shavings. (Reissue).....	9,383	Sept. 21	851	237	18	681
Tompkins, Kilbourne, New York, N. Y. Envelope.....	227,077	Apr. 27	1122	309	17	962
Tompkins, Myron, Attica, Ohio. Wagon-seat.....	228,491	June 8	401	110	17	1300
Toomey, Henry M. (See Shear and Toomey.)						
Toope, Charles, New York, N. Y. Refrigerator.....	235,591	Dec. 14	658	186	18	1399
Tope, Ezra E., Tippecanoe, Ohio. Lifting-jack.....	235,179	Dec. 7	141	40	18	1305
Topliff, Isaac N., Elyria, Ohio. Carriage-bow. (Reissue).....	9,026	Jan. 6	256	68	17	47
Torrent, John, Muskegon, Mich. Log-turner. (Reissue).....	9,291	July 13	687	192	18	121
Torrey, Bartlett N., assignor of one-half interest to L. W. Winkley, Creston, Iowa. Window-screen.....	232,573	Sept. 21	831	231	18	677
Torrey & Co., Alexis. (See Daggett, John C., assignor.)						
Torrey, Dolphus, New York, N. Y. Pile for the manufacture of composite plates.....	235,471	Dec. 14	514	148	18	1375
Torrey, Francis B., Bath, Me. Anti-friction roller for sheaves.....	232,423	Sept. 21	671	185	18	650
Torrey, Joseph R., Worcester, Mass. Razor-strop.....	229,342	June 29	1432	{ 394 395 }	17	1474
Tostenson, Christian, assignor to McDonald Manufacturing Company, Fond du Lac, Wis. } Thrasher and separator.....	233,818	Oct. 26	1262	{ 352 353 }	18	973
Tothill, William S., Chicago, Ill. Swing.....	231,942	Sept. 7	75	19, 20	18	536
Totten, Charles A. L., United States Army. Game apparatus.....	227,931	May 25	991	284	17	1170
Totten, James M., Sharon, Wis. Wrench.....	236,114	Dec. 28	1310	361	18	1522
Totten, Robert C., Allegheny, Pa. Roll for rolling metal.....	228,842	June 15	354	233	17	1375
Toucey & Buchanan Interlocking Switch Company. (See Jackson and Guerber, assignors.)						
Toucey & Buchanan Interlocking Switch Company. (See Saxby, John, assignor.)						
Toucey, John M. (See Buchanan, Toucey, and Hoyt.)						
Tower, Abner J., Boston, Mass. Sleeve.....	228,790	June 15	788	216	17	1367
Towers, John V. R., Washington, D. C. Invalid-bed rest.....	229,286	June 29	1356	372	17	1464
Towle, John J., Dixfield, Me. Combined foot-warmer and lantern.....	228,701	June 8	637	173	17	1335
Towne, Henry R., Stamford, Conn. Lock-cylinder.....	234,030	Nov. 16	1005	263	18	1171
Towne, Horace A., Brainerd, Minn. Locomotive-boiler.....	230,363	July 20	1006	285	18	180
Towne, Horace A., Brainerd, Minn. Freight-car-door fastening.....	233,644	Oct. 26	1070	298	18	940
Townley, James H., Tompkins, Mich. Device for converting motion.....	227,707	May 18	718	203	17	1116
Townsend, Bethel B., Penn Yan, N. Y., assignor of one-half interest to W. A. Townsend. Fence.....	230,210	July 20	825	234	18	152
Townsend, Eli C., New York, N. Y. Urn for the reception of the ashes of the dead.....	232,782	Sept. 28	1093	300	18	727
Townsend, Isaac. (See Thompson, Henry B., assignor.)						
Townsend, Jacob, Jolietville, Ind. Dumping-wagon.....	233,049	Oct. 5	306	85	18	788
Townsend, John D., assignor of two-fifths to C. L. Gore, New York, N. Y. Conductor for underground-telegraph lines.....	235,611	Dec. 14	685	196	18	1403
Townsend, Matthew, deceased, G. F. Sumner, administrator, and assignor to C. Sumner, Canton, Mass. Knitting-machine for manufacturing fabrics for mattresses, &c.....	229,487	June 29	1603	442	17	1497
Townsend, T. O. (See Wood, William B., assignor.)						
Townsend, William A. (See Townsend, Bethel B., assignor.)						
Townsend, Wisner H., New York, N. Y. Straw matting.....	225,735	Mar. 23	897	261	17	641
Tozer, Gilbert, Hurd, Pa. Vehicle-wheel hub.....	225,498	Mar. 16	615	178	17	582
Trabue, William, Louisville, Ky. Magazine fire-arm.....	223,414	Jan. 6	232	61	17	42
Trabue, William, Louisville, Ky. Magazine fire-arm.....	223,660	Jan. 20	557	149	17	118
Tracy, Daniel D., Macon, Ga. Indicator for pianos and organs.....	229,287	June 29	1357	372	17	1464
Tracy, William D. (See Goodwin, Mark, assignor.)						
Tracy, William D., New York, N. Y. Floating dumping-dock.....	232,316	Sept. 14	524	146	18	620
Tracy, William H. H., Troy, N. Y. Neck-band shaper.....	223,778	Jan. 20	684	184	17	138
Trafton, Charles G., Slatersville, R. I. Thread-guide for spooling-machines.....	230,509	July 27	1213	342	18	220
Trabern, William D., Rockford, Ill. Pump.....	231,460	Aug. 24	996	280	18	429
Tramblie, Philip, and J. Gilbert, Oregon, Wis. Washing-machine.....	229,927	July 13	489	136	18	89
Trann, Heinrich, O., and M., Harburg-on-Elbe, Prussia, Germany. Manufacture of hard rubber or vulcanite.....	226,572	Apr. 13	494	.....	17	840
Trann, Heinrich, O., and M., Harburg-on-Elbe, Prussia, Germany. Ornamenting hard rubber.....	228,290	June 1	159	.....	17	1252
Trann, Max. (See Trann, Heinrich, O., and M.)						
Trann, Otto. (See Trann, Heinrich, O., and M.)						
Trautmann, Charles M., South Bend, assignor to Farmers Friend Manufacturing Company, Cincinnati, Ohio. Velocipede.....	229,562	July 6	66	19	18	19
Trautmann, Charles M., South Bend, assignor to Farmers Manufacturing Company, Cincinnati, Ohio. Velocipede.....	232,620	Sept. 28	896	247	18	694
Travis, Charles L., Minneapolis, Minn., assignor to Minneapolis Grain Binder Company. Grain-binder.....	224,744	Feb. 17	885	253	17	380
Travis, Charles L., Minneapolis, Minn., assignor, by mesne assignment, to Grain Binder Association, Norristown, Pa. Gleaner and binder.....	228,003	May 25	1086	309	17	1185
Travis, Ira U. (See Terrell and Travis.)						
Travis, Thomas W., Philadelphia, Pa. Railway-rail-supporting device.....	224,808	Feb. 24	994	282	17	412
Treadwell, Marcus M. (See Farnham, Frank G., assignor.)						
Treat, Adna A., Indianapolis, Ind. Gate-latch.....	234,092	Nov. 2	320	88	18	1039
Trefren, John L., Santa Cruz, Cal. Heating-furnace.....	230,837	Aug. 3	281	80	18	293
Tregurtha, James, assignor to Chase, Merritt & Blanchard, Boston, and W. N. Dole, agent, Lynn, Mass. Triturating and mixing apparatus.....	227,395	May 11	361	106	17	1048
Tregurtha, James, assignor to Chase, Merritt & Blanchard, Boston, and W. N. Dole, agent, Lynn, Mass. Dissolving apparatus.....	227,396	May 11	362	106	17	1048
Tregurtha, James, assignor to Chase, Merritt & Blanchard, Boston, and W. N. Dole, Lynn, Mass. Machine for making artificial leather.....	231,692	Aug. 31	1266	356	18	478
Treman, Lafayette L., Ithaca, N. Y. Gas-meter.....	233,645	Oct. 26	1072	298	18	940
Trenbath, Samuel. (See Bennett and Trenbath.)						
Trench, George. (See Fanre and Trench.)						
Trenk, Heinrich, Berlin, Germany, assignor to himself, J. and C. Ballatschano, Bucharest, Roumania. Composition for use in tanning.....	236,115	Dec. 28	1311	.....	18	1522



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Trenkamp, Henry. (See Schneider and Trenkamp.)						
Trent, Joseph, New York, N. Y. Burner for kerosene-lamps.	226,210	Apr. 6	76	19	17	759
Trent, Joseph, New York, N. Y. Lamp.	226,211	Apr. 6	76	19	17	759
Trent, Joseph, assignor to Manhattan Burner Company, New York, N. Y. Lantern. (Re-issue)	9,191	May 4	296	86	17	1027
Trent, Joseph, Greenville, N. J. Propelling vessels.	233,127	Oct. 12	414	114	18	812
Trenton Iron Company. (See Hewitt, William, assignor.)						
Trenton Iron Company. (See Hewitt and Withington, assignors.)						
Trested, Richard H., New York, N. Y. Celluloid hat and other head-covering.	224,745	Feb. 17	887	253	17	380
Trested, Richard H., New York, N. Y. Celluloid-coated faucet and gage-cock.	234,823	Nov. 23	1253	337	18	1217
Trilk, William, La Crosse, Wis. Paper-hanger's table.	229,497	June 29	1612	444	17	1498
Triphagen, Charles H., Pewamo, Mich. Vehicle-wheel.	234,506	Nov. 16	839	225	18	1143
Tripler, Charles E., and W. H. Roff, New York, N. Y. Rowing-vehicle.	230,838	Aug. 3	282	81	18	293
Tripler, Charles E., and W. H. Roff, New York, N. Y. Velocipede.	232,783	Sept. 28	1094	300	18	727
Tripp, Augustus F., Buffalo, N. Y. Coal-box and fire-iron holder. (Reissue)	9,267	June 29	1629	449	17	1501
Tripp, David T. (See Jenkins, Joseph C., assignor.)						
Tripp, Freeman L., Eau Claire, Wis. Attachment for street-cars.	235,180	Dec. 7	142	40	18	1306
Tripp, Garner M. (See Jones, Charles E., assignor.)						
Tripp, Henry A. and W., East Williamson, N. Y. Hoop-lock cutter.	223,824	Jan. 27	757	202 203	17	160
Tripp, Seth D., Lynn, Mass. Button-hole-cutting machine.	235,918	Dec. 28	1073	297	18	1483
Tripp, Thomas, East Stoughton, Mass. Metallic packing.	236,116	Dec. 28	1311	361	18	1522
Tripp, Thomas, East Stoughton, Mass. Metallic packing.	236,117	Dec. 28	1313	361	18	1522
Tripp, Thomas, East Stoughton, Mass., assignor to American Metallic Packing Association. Metallic packing for piston-rods.	225,307	Mar. 9	393	115	17	535
Tripp, Thomas, East Stoughton, Mass., assignor to American Metallic Packing Association. Piston-packing.	225,308	Mar. 9	395	115	17	535
Tripp, Walter. (See Tripp, Henry A. and W.)						
Troeger, John W., Naperville, Ill. Clothes-pounder.	228,142	May 25	1232	350	17	1209
Trott, Charles H., Boston, Mass. Surcingle.	235,316	Dec. 7	296	84	18	1330
Trout, Hollis C., Minneapolis, Minn. Letter-box.	229,209	June 22	1263	347	17	1443
Trowbridge, Charles S., et al. (See Letterman, Charles, assignor.) (Reissue.)						
Trowbridge, Charles S. (See Roseboom, Garret P., assignor.)						
Trowbridge, Noble A. (See Curtis, Musser, and Trowbridge.)						
Troy Stamping Works. (See Salisbury, Warren F., assignor.)						
Truax, Amos M., Oxford, Ohio. Horseshoe.	228,492	June 8	401	110	17	1300
Truax, Leonard H., St. Johnsbury, Vt. Machine for stamping scale-beams, &c.	224,116	Feb. 3	171	48	17	231
Truax, Leonard H., St. Johnsbury, Vt. Die-box for stamping-machines.	232,912	Oct. 5	142	38	18	761
Truby, Michael, Elkhart, Ind. Alarm for door-knobs.	235,592	Dec. 14	659	186	18	1399
Trudelle, Theophile A., and E. Maheux, Quebec, Canada. Car-coupling.	235,045	Nov. 30	1527	411	18	1269
True, David. (See Matthews, Elbridge G., assignor.) (Reissue.)						
Trueblood, Jeremiah W., assignor of two-thirds interest to J. Matz and J. B. Wells, Bicknell, Ind. Vehicle-axle box.	225,184	Mar. 2	226	64	17	495
Trueblood, J. W., et al. (See Matz, Joseph, assignor.)						
Truesdell, Lewis W., Owego, N. Y. Faucet.	232,380	Sept. 21	618	170	18	641
Trumbour, Adam, Harrisburg, Pa. Nail-plate feeder.	225,438	Mar. 9	536	154	17	558
Trump, Fuller, assignor to J. W. Bookwalter, Springfield, Ohio. Steam-boiler.	228,143	May 25	1233	350	17	1209
Trump, George, assignor of one-half interest to C. H. Carstens, Driftwood, Pa. Pitcher.	230,724	Aug. 3	147	43	18	270
Trump, John G., Vassar, Mich. Stump-puller.	224,746	Feb. 17	887	254	17	380
Trust, Alexander V., New York, N. Y. Amalgamator.	229,498	June 29	1612	444	17	1499
Truxal, William, assignor of one-half interest to W. Cromm, Butler, Pa. Bee-live.	230,448	July 27	1147	322	18	209
Truxel, Jacob. (See Sattison, Jacob, assignor.)						
Tschirner, Max, San Francisco, Cal. Explosive compound.	232,381	Sept. 21	618		18	641
Tschop, Albert. (See Hildrup and Tschop.)						
Tubbs, J. Nelson. (See Kuichling, Emil, assignor.)						
Tubbs, Nelson J., Manhattan, Kans. Pump.	231,379	Aug. 17	903	254	18	407
Tuchfarber, Frank, Cincinnati, Ohio. Flexible sign. (Reissue)	9,223	June 1	303	85	17	1275
Tuck, Josiah H. L., San Francisco, Cal. Ore-grinding mill.	233,383	Oct. 19	743	203	18	876
Tucker, Charles A., Brooklyn, N. Y. Nut-lock.	232,090	Sept. 7	255	70	18	565
Tucker, Charles H., Jordan, N. Y. Hernial truss.	233,646	Oct. 26	1073	298	18	940
Tucker, Ephraim, assignor to E. W. Vaill, Worcester, Mass. Folding chair.	228,144	May 25	1234	350	17	1209
Tucker, Frederick O., Hartford, Conn. Stop-motion for looms.	226,810	Apr. 20	776	216	17	897
Tucker, George W., Waterbury, Conn. Manufacture of tubular rivets.	228,423	June 1	290	82	17	1273
Tucker, George W., Waterbury, Conn. Drawer-pull.	234,696	Nov. 23	1100	295	18	1192
Tucker, Hiram, Boston, Mass. Door-knob.	223,259	Jan. 6	63	16	17	13
Tucker, John, New York, N. Y. Water-faucet.	227,598	May 11	589	168	17	1086
Tucker Manufacturing Company. (See Eastman, Andrew M., assignor.)						
Tucker, Melvin M., Carson City, Mich. Wash-board.	223,458	Jan. 13	311	83	17	68
Tucker, Richard H., New York, N. Y. Pneumatic propulsion of canal-boats.	227,323	May 4	266	78	17	1022
Tucker, Richard H., New York, N. Y. Fire-escape.	227,324	May 4	267	78	17	1022
Tucker, Stephen D. (See Hoe and Tucker.)						
Tucker, Stephen D., New York, N. Y. Sheet-delivering apparatus for printing-presses.	225,666	Mar. 16	803	234 235 236	17	616
Tucker, Stephen D., New York, N. Y. Sheet-delivery apparatus for printing-machines.	227,599	May 11	590	168 169	17	1086
Tucker, Stephen D., New York, N. Y. Revolving type-bed.	230,973	Aug. 10	441	126	18	326
Tucker, Sylvester J., and R. F. Williams, Richmond, Va. Street-car.	235,046	Nov. 30	1528	412	18	1270
Tucker, Thomas P., Independence County, Ark. Tanning process.	229,928	July 13	490		18	90
Tucker, William, East Toledo, Ohio. Car-coupling.	228,956	June 15	972	265	17	1392
Tucker, William, East Toledo, Ohio. Car-coupling.	233,302	Oct. 12	624	172	18	849
Tucker, William H., et al. (See Woodruff, Chauncey D., assignor.) (Reissue.)						
Tudor, Frederick, and Q. N. Evans, Boston, Mass. Steam-radiator.	224,055	Feb. 3	99	29	17	520
Tufts, James W. (See Andrews, Matthew S., assignor.)						
Tufts, Joseph W., Malden, Mass. Last or form for shaping rubber boots.	226,574	Apr. 13	496	139	17	840
Tufts, Otis, South Boston, Mass. Elevator.	235,047	Nov. 30	1530	412	18	1270
Tuggle, John, New Middleton, Tenn. Curry-knife.	227,597	May 11	588	168	17	1086
Tullis, John W., assignor of one-half interest to J. A. Nevins, Fairfield, Ill. Clothes-pounder.	224,747	Feb. 17	888	254	17	381
Tully, Thomas, Springfield, Ill. Apparatus for elevating and forcing water through pipes.	224,561	Feb. 17	680	194	17	345
Tully, William, London, England. Tube-expander.	232,317	Sept. 14	525	146	18	620
Tully, William, London, England. Apparatus for securing boiler-tubes.	233,050	Oct. 5	307	85	18	789
Tunbridge, John, Newark, N. J. Recovering precious metals from liquids in which they are suspended.	228,004	May 25	1089		17	1185
Turell, Garland, et al. (See Vetter, Joseph C., assignor.)						
Turley, Marshall, Council Bluffs, Iowa. Horse-collar.	225,200	Mar. 2	248	69	17	499

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Turnbull, Alexander, Newark, N. J. Hearse-curtain fixture.....	228,702	June 8	638	173	17	1335
Turnbull, Andrew, <i>et al.</i> (See Eddy, George W., assignor.).....						
Turnbull, James C., Gouverneur, N. Y. Vehicle-wheel.....	227,458	May 11	430	125	17	1059
Turnbull, John, Jr. (See Lockwood, William, assignor.).....						
Turner, Alexander, deceased, assignor to L. A. Doherty, Boston, Mass. Child's table-tray. (Reissue).....	9,285	July 6	337	93	18	58
Turner, Alonzo B., Mount Savage, Md. Underground-telegraph line.....	223,868	Jan. 27	814	218	17	169
Turner, George M. (See Brown, Ballentine, and Turner.).....						
Turner, George R., Turner's Station, Ky. Churn.....	224,493	Feb. 10	595	172	17	321
Turner, George W. (See Myrick, Israel E., assignor.).....						
Turner, George W., Booneville, Miss. Explosive shell.....	229,499	June 29	1614	445	17	1499
Turner, Henry and W., Montreal, Quebec, Canada. Suspenders.....	225,082	Mar. 2	126	36	17	478
Turner, Henry, assignor to Smith & Anthony Stove Company, Boston, Mass. Stove.....	227,932	May 25	992	284	17	1171
Turner Howard, assignor to R. W. Turner, Boston, Mass. Pneumatic railway switch and signal apparatus.....	226,637	Apr. 20	596	166	17	867
Turner, Isaac P., assignor of one-half to J. H. Colby, Troy, N. Y. Method of and apparatus for turning collars and cuffs.....	236,118	Dec. 28	1315	362	18	1522
Turner, James L., and W. Angel, Big Lick, Va. Tobacco-drier.....	230,680	Aug. 3	101	29	18	263
Turner, James R. (See Kidnocker, Morris, assignor.).....						
Turner, Joseph S., Rockland, Mass. Machine for channeling and trimming boot and shoe } soles.....	232,382	Sept. 21	619	{ 170 171 }	{ 18 18 }	641
Turner, Joshua, Cambridge, assignor to I. S. Pear, Boston, Mass. Folding camp-chair.....	231,868	Aug. 31	1487	417	18	512
Turner, Lewis W., Yalesville, Conn. Lantern-holder.....	235,181	Dec. 7	143	41	18	1306
Turner, Robert L., Olen, Ohio. Hand-hoe.....	226,573	Apr. 13	495	139	17	840
Turner, Roswell W. (See Turner, Howard, assignor.).....						
Turner, Seth W., New Richmond, Wis. Measuring device for sacking grain.....	226,373	Apr. 6	248	73	17	791
Turner, Silas, Homer, La. Syringe attachment.....	228,422	June 1	289	82	17	1273
Turner, Thomas H. B., and H. A. Logan, Clinton County, Mo. School desk and seat.....	231,509	Aug. 24	1050	294	18	437
Turner, William. (See Turner, Henry and W.).....						
Turner, William A., assignor to Retort Gas Stove Company, Providence, R. I. Gas-stove.....	224,056	Feb. 3	100	29	17	220
Turner, William W., Powellville, Ga. Plow.....	231,633	Aug. 24	1187	332	18	459
Turney, H. D. (See Lewis and Evans, assignors.).....						
Tassing, George, Basil, Ohio. Farm-gate.....	233,819	Oct. 26	1266	354	18	974
Tutt, Eugene R., Ukiah, Cal. Lantern.....	230,839	Aug. 3	284	81	18	294
Tuttle, Edward A., New York, N. Y. Hot-air register.....	225,083	Mar. 2	127	36	17	478
Tuttle, Edward A., New York, N. Y. Hot-air register.....	225,084	Mar. 2	128	37	17	478
Tuttle, Edward A., New York, N. Y. Exercising-machine.....	225,736	Mar. 23	898	261	17	641
Tuttle, Edward A., New York, N. Y. Exercising-machine.....	231,869	Aug. 31	1468	417	18	512
Tuttle, Edward A., New York, N. Y. Exercising-machine.....	232,217	Sept. 14	408	113	18	599
Tuttle, Edward A., New York, N. Y. Extension-handle for exercising-machines.....	232,218	Sept. 14	409	113	18	600
Tuttle, Francis R. (See Randall and Tuttle.).....						
Tuttle, Hosmer, Cedar Rapids, Iowa. Automatic valve-lifter.....	227,600	May 11	593	169	17	1086
Tuttle, Hosmer, Cedar Rapids, Iowa. Cone for stove-grates.....	235,830	Dec. 21	941	263	18	1454
Tuttle, John W. T. (See Collins, Tuttle, and Collins.).....						
Tuttle, Orrin M., New Haven, Conn. Carriage-curtain fastening.....	230,364	July 20	1007	285	18	180
Tuttle, Silas, Jr., Brooklyn, N. Y. Hot-air register.....	225,085	Mar. 2	129	37	17	479
Tweedle, Benjamin, assignor of one-half to J. W. Mathers and C. W. Sears, Philadelphia, Pa. Dumping-cart.....	234,351	Nov. 9	633	173	18	1101
Twitcheil, Lonsville, Washington, D. C. Hand-guide for use in teaching penmanship.....	226,942	Apr. 27	954	265	17	936
Twombly, Orison, Lake Village, N. H. Knitting-machine.....	229,288	June 29	1358	{ 372 373 }	{ 17 17 }	1464
Tyler, Abel D., Brockton, Mass. Elastic rubber tool holder or handle.....	224,251	Feb. 3	314	91	17	255
Tyler, Albert S., Chicago, Ill. Apparatus for holding and delivering coin.....	226,575	Apr. 13	497	140	17	840
Tyler, Benjamin O., Trenton, N. J. Automatic relief-valve.....	228,493	June 8	402	110	17	1300
Tyler, Charles D., Newark, assignor to himself and C. W. Mills, Pompton, N. J. Elevated railway.....	223,415	Jan. 6	233	61	17	42
Tyler, F. E. (See Dietz, Oswald L. W., assignor.).....						
Tyler, Frank K. (See Henry, John J., assignor.).....						
Tyler, James E., Orange Court-House, Va. Machine for edging sheet metal.....	235,317	Dec. 7	298	84	18	1331
Tyler, Sidney M., assignor, by mesne assignments, to Remington Sewing Machine Company, Ilion, N. Y. Sewing-machine. (Reissue).....	9,079	Feb. 17	910	260	17	385
Tyler, T. Frank, assignor to himself, T. W. Tyler, and C. O. Beede, Lynn, Mass. Hatch-way-guard mechanism.....	230,840	Aug. 3	285	81, 82	18	294
Tyler, T. W., <i>et al.</i> (See Tyler, T. Frank, assignor.).....						
Tyler, W. S. (See White, Joseph, assignor.).....						
Tym, James N., Jackson, Mich. Packing brooms and the case employed therein.....	226,891	Apr. 27	893	{ 248 249 }	{ 17 17 }	927
Tymeson, Eugene. (See Skinner and Tymeson.).....						
Tyng, Levi B., Lowell, Mass. Fish-joint for railway-rails.....	223,260	Jan. 6	64	16	17	13
Tyrrill, Charles, Corfu, N. Y. Barrel-heading press.....	223,302	Jan. 6	117	30	17	22
Tyrrill, Charles, Corfu, N. Y. Barrel-heading press.....	223,303	Jan. 6	118	30	17	22
Tyrrill, Edward W., Providence, R. I. Horseshoe-machine.....	230,450	July 27	1150	{ 323 324 325 }	{ 18 18 18 }	209
Tyrrill, John F., New York, N. Y. Compound for soap.....	233,716	Oct. 26	1150	.....	18	953
Tyson, Benjamin H., Wilson, N. C. Cotton-press.....	230,449	July 27	1148	323	18	209
Tyson, Benjamin H., Wilson, N. C. Cotton and hay press.....	233,447	Oct. 19	821	226	18	888
Tyson, Bryan, Washington, D. C. Gold-saving apparatus.....	229,650	July 6	137	44	18	32
Tyson, Charles, Philadelphia, Pa. System of pumping.....	226,008	Mar. 30	1238	350	17	709
Tytler, Alexander D., San Antonio, Tex. Spur.....	225,955	Mar. 30	1177	334	17	699
Udell, Calvin G. (See Schmieding and Udell.).....						
Ufford, Hezekiah G., Boston, Mass. Adjustable form for garments.....	233,173	Oct. 12	467	128	18	822
Uhlinger, William P., Philadelphia, Pa. Jacquard apparatus for looms.....	230,591	July 27	1305	{ 367 368 }	{ 18 18 }	226
Ullman, Morris, Alexandria, Va., assignor to himself and W. Fischer, Washington, D. C. Electric annunciating-target.....	232,424	Sept. 21	672	185	18	650
Ullman, Nathan, and M. D. Styles, New York, N. Y. Crayon compound.....	223,869	Jan. 27	816	.....	17	169
Ullmo, Simon, Lyons, France. Tanning compound.....	230,841	Aug. 3	257	.....	18	294
Ulmer, Sarah A., Portland, Me. Egg-beater.....	224,117	Feb. 3	172	48	17	231
Ulrich, Frederick J., Oil Creek township, Crawford county, Pa. Device for jointing saw-teeth.....	230,908	Aug. 10	374	108	18	315
Ulsmann, Hermann. (See Althans, Junghann, and Ulsmann.).....						
Umbach, Johann A., Hamburg, Germany. Ruling-machine.....	231,870	Aug. 31	1488	417	18	512

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Umbstaetter, J. E., <i>et al.</i> (See Magill, Robert, assignor.)						
Umstadter, Michael, Norfolk, Va., assignor, by mesne assignments, to Old Dominion Manufacturing Company, New York, N. Y. Jacquard attachment for embroidering-machines. (Reissue)	9,470	Nov. 16	1033	276	18	1175
Umstadter, Michael, Norfolk, Va., assignor, by mesne assignments, to Old Dominion Manufacturing Company, New York, N. Y. Jacquard attachment for embroidering-machines. (Reissue)	9,471	Nov. 16	1035	276	18	1176
Underhill, Aaron J., assignor to himself and E. M. Pratt, Appleton, Wis. Apparatus for producing copies of writings	231,122	Aug. 10	604	171	18	352
Underhill, Stephen W., Croton Landing, N. Y. Furnace and boiler	235,659	Dec. 21	740	211	18	1420
Underhill, William W., Brooklyn, N. Y. Accountant's or book-keeper's desk	232,784	Sept. 28	1095	300	18	723
Underwood, Charles J., Boston, Mass. Folding basket	231,461	Aug. 24	997	280	18	429
Underwood, James E., Tolland, Conn. Mechanical movement	229,295	June 29	1367	375	17	1465
Underwood, John K. (See St. John and Underwood.)						
Underwood, John K., and G. B. St. John, Cedar Rapids, Iowa. Rotary plow	233,455	Oct. 19	834	230	18	890
Underwood, John M., Newark, N. J., assignor to A. Searls. Whip-socket	231,510	Aug. 24	1050	294	18	437
Underwood, Joseph B., Fayetteville, N. C. Harness-maker's sewing-horse	226,210	June 22	1263	347	17	1443
Union Brass Manufacturing Company. (See Ellacott, Joseph P., assignor.)						
Union Electric Signal Company. (See Fisher, Israel, assignor.)						
Union Electric Signal Company. (See Gassett and Fisher, assignors.)						
Union Electric Signal Company. (See Gassett, Oscar, assignor.)						
Union Metallic Cartridge Company. (See Hobbs, Alfred C., assignor.)						
Union Rubber Enamel Company. (See Stevens, Edgar M., assignor.)						
Union Wire Mattress Company. (See Powers, David J., assignor.) (Reissue.)						
United States Automatic Gas Machine Company. (See Henning, Abel, assignor.)						
United States Cord Company. (See Barnes, Charles E., assignor.)						
United States Electric Lighting Company. (See Maxim, Hiram S., assignor.)						
United States Horse Nail Company. (See Whipple, Lyman W., assignor.)						
United States Label, Card, and Tag Company. (See Wright, George M., assignor.)						
United States Metallic Packing Company. (See Schneble, Martin, assignor.) (Reissue.)						
Untermeyer, David, New York, N. Y. Necklace-clasp	230,510	July 27	1214	342	18	220
Untermeyer, David, New York, N. Y. Finger-ring	234,093	Nov. 2	321	89	18	1039
Unzicker, Otto, assignor to A. Shoener, Chicago, Ill. Locomotive-chair	229,500	June 29	1615	445	17	1499
Upham, Victor De M., Brooklyn, N. Y. Machine for heading rivet and screw blanks. (Reissue)	9,027	Jan. 6	257	68	17	47
Upjohn, William E. (See Sweet, D. Fred., assignor.)						
Upton, Frank S., <i>et al.</i> (See Kenyon, John, assignor.)						
Upton, George W. D., and A. Partridge, Springfield, Mass. Yarn-guide for spooling-machines	231,380	Aug. 17	904	254	18	407
Upton, James S., Battle Creek, Mich. Combined comb and shield	226,374	Apr. 6	248	73	17	791
Urbahn, Alwill, assignor to J. Weidmann, Paterson, N. J. Silkbeating and washing machine	223,261	Jan. 6	66	17	17	14
Uren, Stephen, Sacramento, Cal. Device for forming links	226,892	Apr. 27	895	249	17	927
Uren, Stephen, Sacramento, Cal. Apparatus for converting scrap into bar steel	231,693	Aug. 31	1268	356	18	478
Urie, William T., Warrensburg, Mo. Wind-engine	223,616	Jan. 13	496	133 134	17	98
Usher, John H., Buffalo, N. Y. Scale-beam	224,494	Feb. 10	595	172	17	321
Utley, William T., Bedford, Mo. Harvester	227,325	May 4	268	79	17	1022
Utter, Edward D., executor, <i>et al.</i> (See Bowers, Marcus M., assignor.) (Reissue.)						
Vacuum Oil Company. (See Everest and Ross, assignors.) (Reissue.)						
Vail, Samuel. (See Lyon and Vail.)						
Vail, Theodore N., Boston, Mass. Circuit and signaling apparatus for district telegraph and telephone systems	224,855	Feb. 24	1046	298	17	420
Vaile, John H., Dayton, Ohio. Steam-engine	235,318	Dec. 7	299	84, 85	18	1331
Vaill, Edward W. (See Chamberlin, George W., assignor.)						
Vaill, Edward W. (See Tucker, Ephraim, assignor.)						
Vaill, Edward W. (See Wakefield, John E., assignor.)						
Vale, Charles L., Beloit, Wis. Cracker-machine. (Reissue)	9,151	Apr. 13	513	144	17	843
Vale, H. E. (See Gondi, James, assignor.)						
Valentine, Benjamin E., Brooklyn, N. Y. Cartridge	223,494	June 8	403	110	17	1300
Valentine & Co., E. B. (See Shackleton, James R., assignor.)						
Valentine, Hewlett. (See Brundage, James E., assignor.)						
Valentine, William M., Glen Cove, N. Y. Trace-fastening	235,182	Dec. 7	143	41	18	1306
Vallee, John B. (See Holland and Vallee.)						
Vallee, John B., New York, N. Y. Dovetail-pattern	231,943	Sept. 7	76	20	18	536
Vallejo, Plutarco. (See Ross and Vallejo.)						
Valentine, James A., New York, N. Y. Faucet attachment and bush	224,057	Feb. 3	100	30	17	220
Valley, John N., Jersey City, N. J. Step-ladder	226,943	Apr. 27	957	265	17	937
Van Allen, Charles A., assignor of one-half interest to G. Long, St. Louis, Mo. Device for keeping the pitmen of sewing-machines off the dead-centers	229,021	June 22	1065	290	17	1414
Van Alstine, Cornelius C. E., Paterson, N. J. Swift	225,185	Mar. 2	227	64	17	495
Van Alstyne, Lawrence, Sharon Valley, Conn. Wagon end-board	234,697	Nov. 23	1100	296	18	1192
Van Altena, Henry. (See Erwin and Van Altena.)						
Van Altena, Henry, Milwaukee, Wis. Chromatic top	233,820	Oct. 26	1267	354	18	974
Van Anker, Charles W., and J. S. Gum, Fowler, Ind. Lever-power car-mover	226,688	Apr. 20	650	180	17	876
Van Benschoten, Henry E., Hillsdale, N. Y. Boot-upper	230,974	Aug. 10	442	127	18	326
Van Benthuyssen, Charles H., and A. Bott, Albany, N. Y. Machine and process for enameling, coating, and calendering paper and paper-board	230,366	July 20	1008	286	18	181
Van Bibber, Andrew, Cincinnati, Ohio. Billiard-table	226,212	Apr. 6	77	20	17	759
Van Buren, John, Honeoye, N. Y. Wheel-cultivator	235,593	Dec. 14	660	187	18	1399
Van Depoele, Charles J., Detroit, Mich. Electric light	227,078	Apr. 27	1122	309	17	962
Van Depoele, Charles J., Detroit, Mich. Dynamo-electric machine	232,574	Sept. 21	832	231	18	677
Van Derzee, John M., Albany, N. Y. Bale-tie	235,183	Dec. 7	144	41	18	1306
Van De Water, Henry, Auburn, N. Y. Churn	224,059	Feb. 3	102	30	17	220
Van De Water, James H., Auburn, N. Y. Washing-machine	230,367	July 20	1009	286	18	181
Van Doren, Joseph B. (See Packham, Frank R., assignor.)						
Van Dusen, Charles E., <i>et al.</i> (See Strait, William, assignor.) (Reissue.)						
Van Dyke, Benton, Chicago, Ill. Folding cot	229,501	June 29	1616	445	17	1499
Van Eps, John, Somerville, N. J. Bellows	229,563	July 6	68	19	18	19
Van Gelder & Co. (See Hertle, John C., assignor.)						
Van Gieson, William H., White Water, Wis. Breech-loading fire-arm	226,893	Apr. 27	896	249	17	927
Van Hoevenberg, Henry, <i>et al.</i> (See Clark, Edmund H., assignor.)						
Van Hoevenbergh, Henry, Elizabeth, N. J. Duplex telegraph	227,079	Apr. 27	1123	309	17	962
Van Hoevenbergh, Henry, Elizabeth, N. J. Telegraph-sounder	230,013	July 13	585	162	18	105

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Van Hoevenbergh, Henry, New York, N. Y. Copying apparatus.....	232,425	Sept. 21	673	186	18	650
Van Hoevenbergh, Henry, Elizabeth, N. J., assignor to American Union Telegraph Company, New York, N. Y. Telegraph relay apparatus.....	235,472	Dec. 14	514	140	18	1375
Van Houser, Henry, assignor of one-half to J. D. Arnold, Dayton, Ohio. Pencil-sharpening machine.....	236,119	Dec. 28	1318	362	18	1523
Van Houten, Cornelius, Belleville, N. J. Rope-twisting machine.....	234,058	Feb. 3	101	30	17	220
Van Houten, Jacob G., Trenton, N. J. Bidet water-closet.....	231,462	Aug. 24	998	281	18	429
Van Hovenberg, David, Pompey, N. Y. Milk-cooler.....	223,661	Jan. 20	557	149	17	118
Van Kannel, Theophilus, assignor to D. L. Chamberlin, Cincinnati, Ohio. Drag-sawing machine.....	224,809	Feb. 24	995	282	17	412
Van Kannel, Theophilus, Cincinnati, Ohio. Gas-generator.....	233,956	Nov. 2	151	40, 41	18	1012
Van Liew, Dennis F. (See Montecr, Alexander N., assignor.) (Reissue.)						
Van Liew, Dennis F., Aurora, Ill. Grain-car-door sill.....	225,441	Mar. 9	539	155	17	559
Van Liew, Dennis F., Aurora, Ill. Freight-car door. (Reissue).....	9,219	May 25	1267	358	17	1215
Van Liew, Dennis F., Aurora, Ill. Car-door.....	232,662	Sept. 28	946	260	18	703
Van Ness, Harman B., Beaufort, S. C. Machine for breaking phosphate-rock from the bed of streams and lifting same.....	229,213	June 22	1267	348	17	1444
Van Osdel, O. Willis. (See Wood and Van Osdel.)						
Van Patten, William J., Burlington, Vt. Milk-faucet.....	226,213	Apr. 6	77	20	17	759
Van Riper, Garritt M., Bodie, Cal. Band sawing machine.....	223,964	Jan. 27	927	248	17	187
Van Sandt, N. L. (See Wolfe, David H., assignor.)						
Van Seoy, Edgar A., Bradford, Pa. Device for removing paraffine from oil-well tubing....	232,091	Sept. 7	255	70	18	566
Van Slyke, Peter C., and T. Nesom, Bloomfield, Ind. Device for holding, counting, and delivering coin.....	234,441	Nov. 16	766	206	18	1131
Van Tassell, Oscar, Parkersburg, Iowa. Feed-steamer.....	225,892	Mar. 23	1074	307	17	670
Van Valen, James H. (See Gee, John H., assignor.)						
Van Vleck, George H. (See Hall, Thurston G., assignor.)						
Van Vliet, Warren R., East Stroudsburg, assignor of one-half interest to J. Lantz, Stroudsburg, Pa. Can.....	226,945	Apr. 27	958	266	17	937
Van Vorst, Gardner B., and J. A. Pratt, West Albany, N. Y. Stand-pipe for railway-stations.	223,416	Jan. 6	234	62	17	43
Van Winkle, Abraham, Newark, N. J. Frame for anodes.....	226,576	Apr. 13	497	140	17	840
Van Winkle, Garret, Plainfield, N. J. Combined elevator and scale.....	225,893	Mar. 23	1075	307	17	670
Van Winkle, John, and F. Donnelly, Jersey City, N. J. Insulating compound for telegraph-wires.....	228,005	May 25	1059	309	17	1185
Van Wormer, Matthew, assignor to N. Van Wormer, Dayton, Ohio. Dumping-car.....	236,121	Dec. 28	1321	363	18	1523
Van Wormer, Nancy. (See Van Wormer, Matthew, assignor.)						
Van Wormer, William H., Piercetown, Ind., assignor, by mesne assignments, to Metallic Heel Stiffener Company. Counter-support for boots and shoes. (Reissue).....	9,030	Jan. 6	262	69	17	48
Van Wyck, Duryea S., Fishkill Plains, N. Y. Treadle mechanism.....	228,424	June 1	290	82	17	1273
Van Zandt & Bixby. (See Follett, Edward P., assignor.)						
Van Zuilen, Henry. (See White and Van Zuilen.)						
Vanbriggie, Henry. (See Vanbriggie, Peter, L., and H.)						
Vanbriggie, Lewis. (See Vanbriggie, Peter, L., and H.)						
Vanbriggie, Peter, L., and H., Kempton, Ind. Rotary engine.....	231,871	Aug. 31	1489	418	18	512
Vance, John, Forest, Ontario, Canada. Fence.....	229,211	June 22	1265	348	17	1443
Vance, Samuel B. H., New York, N. Y. Reflector.....	229,212	June 22	1266	348	17	1443
Vanderbilt, Peter J., et al. (See Brown, John D., assignor.)						
Vandercar, John, West Troy, N. Y. Ironing-machine.....	234,631	Nov. 16	1006	263	18	1171
Vandergrift, J. J., et al. (See Lindsay, James A., assignor.)						
Vandermark, John L. (See Cook and Vandermark.)						
Vandoren, J. K. (See St. Clair, Harry L., assignor.)						
Vanduzen, Ezra W., Newport, Ky. Bell-striker.....	229,564	July 6	69	19	18	19
Vanduzen, Ezra W., Newport, Ky. Attaching clapper-springs to bells.....	229,565	July 6	70	19	18	19
Vanduzen, Ezra W., Newport, Ky. Angle for bell-wires.....	229,566	July 6	71	20	18	19
Vanduzen, Ezra W., Newport, Ky. Gong and signal-bell.....	229,567	July 6	72	20	18	19
Vanduzen, Ezra W., Newport, Ky. Hanging bells.....	229,568	July 6	73	20	18	20
Vanduzen, Ezra W., Newport, Ky. Hanging bells.....	229,569	July 6	74	21	18	20
Vanduzen, Ezra W., Newport, Ky. Line-stand for steamboat-bells.....	229,570	July 6	75	21	18	20
Vanduzen, Ezra W., Newport, Ky. Water-gage.....	229,571	July 6	76	21	18	20
Vanduzen, Ezra W., Newport, Ky. Steam water-elevator.....	235,109	Dec. 7	51	16	18	1290
Vane, Frank, Oneida, N. Y. Billiard-chalk holder.....	226,944	Apr. 27	958	265	17	937
Vanhorn, Preston. (See Leviness and Vanhorn.) (Reissue.)						
Vanhorn, William W., Orangeville Mills, Mich. Rotary harrow.....	223,965	Jan. 27	928	248	17	187
Vauhorne, Daniel A. (See Denman, Julius R., assignor.)						
Vanier, Timothée, Boston, Mass. Machine for trimming boxes.....	236,120	Dec. 28	1318	362	18	1523
Vanier, Zéphirin, Westborough, Mass. Pressed-brick machine.....	223,617	Jan. 13	496	134	17	99
Vanorman, Oliver, assignor of one-half interest to Fish Brothers, Racine, Wis. Corner-iron for wagons.....	230,842	Aug. 3	257	82	18	294
Vansant, James E., Covington, Ky. Portable shower-bath apparatus.....	225,439	Mar. 9	537	154	17	559
Vare, John A., Philadelphia, Pa. Whiffletree-hook.....	231,381	Aug. 17	905	254	18	407
Varlot, Claude, Grenoble, France. Lacing-staple.....	233,579	Oct. 19	972	268	18	914
Varnum, William H., Cambridge, Mass. Shoe-maker's measuring-stick.....	226,429	Apr. 13	323	94	17	814
Varwig, Henry. (See Franzmann, Jacob, assignor.)						
Vasseur, Herman, Wallingford, Conn. Ice-pitcher.....	225,440	Mar. 9	538	155	17	559
Vaughan, Aaron C., Schane's Crossing, Ohio. Railway-rail.....	226,811	Apr. 20	778	217	17	897
Vaughan, David, Bangor, Wis. Millstone-dressing machine.....	230,725	Aug. 3	147	44	18	270
Vaughan, Thomas, Boston, Mass. Show-case.....	224,562	Feb. 17	651	191	17	345
Vaughan, William D. (See Berryhill and Vaughan.)						
Vaughn, John T. (See Chamness and Vaughn.)						
Vaughn, Walter W., Stockton, Cal. Apparatus for boring wells.....	234,151	Nov. 9	397	108	18	1060
Veach, Benjamin F. (See Raiser, Benjamin T., assignor.)						
Vedder Pattern Works, N. S. (See Galbraith, Robert, assignor.)						
Vehlen, Peter J., Michigan City, Ind. Neck-yoke.....	226,134	Mar. 30	1350	359	17	732
Veigel, Andrew. (See Weber, Henry, assignor.)						
Veil, George W., assignor of one-half interest to P. Beach, Bucyrus, Ohio. Ditching-machine.	234,352	Nov. 9	635	173	18	1101
Veith, A. and H. (See Lambert, Jules, assignor.)						
Verbage, Henry, Cincinnati, Ohio. Curing and canning sausage-meat.....	224,563	Feb. 17	682	194	17	346
Vermilya, James H., et al. (See Hunter, George W., assignor.)						
Vermilya, Eugene, and C. E. Norris, Millbury, assignors of one-third interest to J. Luther, Worcester, Mass. Knitting-machine burr.....	229,651	July 6	150	44	18	32
Vermont Farm Machine Company. (See Butler, Francis G., assignor.)						
Vermont Farm Machine Company. (See Butler, Francis G., assignor.) (Reissue.)						
Vermont Farm Machine Company. (See Dorsey and Reed, assignors.)						
Vermont Farm Machine Company. (See Kimball and Williams, assignors.)						
Vernon, William E., Oskaloosa, Iowa. Coffee and nut roaster. (Reissue).....	9,260	June 15	1006	273	17	1398



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Veronee, Cornelius B., Athens, Ga. Coffee-pet.....	226,465	Apr. 13	369	106	17	820
Very, Theodore S. (See Batchelder, Hazen J., assignor.)						
Vester, Adolph, North Attleborough, Mass. Bracelet.....	228,425	June 1	292	82	17	1274
Vetter, Joseph C., assignor of three-fourths interest to G. Turell, B. Perkins, and C. Fel-lows, New York, N. Y. Apparatus for aging liquors.....	223,558	Jan. 13	426	114	17	88
Viall, Jasper A., et al. (See Seymour, Frederick J., assignor.)						
Vick, Alfred, Mount Carmel, Conn., assignor of one-half interest to T. J. Harbach, Phila-delphia, Pa. Velocipede.....	228,496	June 8	405	111	17	1300
Vickers, George R., Jr. (See Brechett, Clinton T., assignor.)						
Victor Sewing Machine Company. (See Pratt, George M., assignor.)						
Villa, José M., Medellín, Antioquia, United States of Colombia. Proportional dividers.....	229,777	July 6	307	86	18	53
Villard, Friedrich, Mount Eaton, Ohio. Portable gate-fence.....	228,844	June 15	856	233	17	1376
Villiers, Eugène, assignor to himself and Lignoid Fancy Article Manufacturing Company, Newark, N. J. Die for molding thimbles from celluloid or other material.....	233,898	Nov. 2	82	21	18	1000
Vincent, David, and D. Johnen, Paris, France. Weighing-scales.....	228,843	June 15	855	233	17	1376
Vincent, John W., Decatur, Ill. Check-row attachment for corn-planters.....	233,717	Oct. 26	1151	320	18	953
Vincent, Mitchell, et al. (See Marr, William C., assignor.)						
Vincent, Wesley C. (See Fearn, William R., assignor.)						
Vincent, William G., Columbia, Iowa. Hog-trough.....	225,309	Mar. 9	396	115	17	535
Vining, George, Stockbridge, assignor of one-fourth interest to E. F. Peck, Great Barrington, Mass. Sizing for paper, &c.....	223,459	Jan. 13	312		17	68
Vinson, Richard T. (See Caldwell and Vinson.)						
Vinton, John H., assignor to F. Armstrong, Bridgeport, Conn. Machine for cutting screw-threads.....	233,821	Oct. 26	1268	{ 354 355 }	18	974
Voelk, Andrew, Erie, Pa. Grinding-mill.....	231,512	Aug. 24	1053	295	18	438
Voelker, William L., Morton, Pa. Electric burglar-alarm.....	224,060	Feb. 3	103	30, 31	17	221
Voelker, William L., Morton, Pa. Electro-magnetic regulator for contact-telephones.....	231,738	Aug. 31	1324	373	18	487
Voelker, William L., Morton, Pa. Relay.....	236,122	Dec. 28	1323	363	18	1524
Vogdt, Johann W. R., Potsdam, Prussia, Germany. Window-blind.....	230,511	July 27	1215	342	18	220
Vogel, Charles, Fort Lee, N. J. Grinding-machine for file-blanks.....	228,574	June 8	500	134	17	1314
Vogel, Frederick, New York, N. Y. Combined hat-rack, blacking-stand, &c.....	233,580	Oct. 19	973	268	18	914
Vogel, Hermann W., Berlin, Germany. Producing photographic emulsions.....	235,831	Dec. 21	942		18	1455
Vogel, John W., Sharpsburg, Pa. Glass-furnace.....	231,123	Aug. 10	605	171	18	352
Vogel, William, New York, N. Y. Pocket.....	235,919	Dec. 28	1074	297	18	1483
Vogele, Jacob, Wilkesburg, Pa. Miner's lamp.....	229,929	July 13	491	136	18	90
Vogt, Axel S. (See Wood, Joseph, assignor.)						
Vogt, Axel S., assignor of one-half interest to J. Wood, Altoona, Pa. Automatic railway-brake.....	231,511	Aug. 24	1051	295	18	437
Vohringer, Fred. (See Holzner and Vohringer.)						
Voit, Reynold, West Meriden, Conn. Glass-scalloping machine.....	228,495	June 8	404	111	17	1300
Volkel, John L., Sulphur Springs, Mo. Breech-loading fire-arm.....	234,632	Nov. 16	1007	268	18	1171
Volkmar, Louis G., New York, N. Y. Apparatus for drying and preserving by cold air.....	227,326	May 4	269	79	17	1022
Vollschwitz, Rudolph, Elizabeth, N. J. Lock.....	227,327	May 4	270	79	17	1022
Volpp, Schwarz & Co. (See Griessmayer, Philipp, assignor.)						
Von Corvin, Otto, Washington, D. C. Producing objects of metal ornamented with incrusta-tions of celluloid, rubber, horn, pearl, &c., on their surfaces.....	233,076	Oct. 12	345		18	801
Von Erichsen, Paul, Washington, D. C. Toy insect.....	227,933	May 25	993	285	17	1171
Von Erichsen, Paul, Washington, D. C. Creeping toy.....	228,231	June 1	83	25	17	1240
Von Hefner-Alteneck, Friedrich, Berlin, Germany. Dynamo-electric machine.....	234,353	Nov. 9	636	{ 173 174 175 }	18	1101
Von Leescu, Heinrich, Itzehoe, Prussia, Germany. Automatic billiard time-register.....	236,123	Dec. 28	1325	{ 363 364 }	18	1524
Von Leicht, Ferdinand, San Francisco, Cal. Propelling ships.....	230,160	July 20	767	214	18	142
Von Platen, Carl G. (See Kraemer, William, assignor.)						
Von Podewils, Adelbert, Munich, Bavaria. Apparatus for drying and deodorizing liquid manure.....	223,606	Jan. 13	487	131	17	97
Von Ringharz, Theodore, assignor of one-half interest to E. F. Donkin, Baltimore, Md. Earth-boring apparatus for Artesian and other wells.....	228,780	June 15	777	212	17	1365
Von Schenk, Bernhard, Heidelberg, Germany. Mass for manufacturing plastic objects.....	231,108	Aug. 10	588		18	350
Voorhees, John K., Pella, Iowa. Corn-planter.....	223,343	June 29	1433	395	17	1474
Voorhis, John C., Englewood, N. J. Water-elevator.....	235,594	Dec. 14	661	187	18	1399
Voorhis, Winfield. (See Walters and Voorhis.)						
Voos, Johanna, assignor to herself and A. Kaufmann, New York, N. Y. Shawl-strap.....	224,748	Feb. 17	889	254	17	381
Voos, Johanna, assignor to herself and A. Kaufmann, New York, N. Y. Package-holder.....	231,975	Sept. 7	129	32	18	545
Vorpahl, Leonhard, and H. Pohl, Berlin, Germany, assignors to Koch, Sons & Co., New York, N. Y. Album-clasp.....	233,174	Oct. 12	467	129	18	822
Vosburgh, Marie A., Kalamazoo, Mich. Danger-signal.....	228,232	June 1	84	25	17	1241
Vose, George L., and A. S. Southwick, Providence, R. I. Manufacture of jewelry.....	234,152	Nov. 9	398	108	18	1060
Vose, Richard. (See Cliff, Edward, assignor.)						
Vose, Robert, Jr., et al. (See Huston, David, assignor.)						
Vote, Gus, et al. (See Bartels, William H., assignor.)						
Vreeland, Aaron, Newark, N. J. Velocipede.....	225,310	Mar. 9	397	115	17	535
Vreeland, Aaron, Cedar Grove, N. J. Self-loading cart.....	226,638	Apr. 20	598	166	17	867
Vuille, P. Auguste, Chaux de Fonds, Switzerland. Stem winding and setting attachment for watches.....	225,542	Mar. 16	666	195	17	591
Vulpins, Edler H. C. A. T., assignor to S. E. Griscom, Pottsville, Pa. Millstone-dressing machine.....	225,442	Mar. 9	540	155	17	559
Wachtershauser, George F., Philadelphia, Pa. Machine for cutting umbrella-covers.....	225,443	Mar. 9	541	155	17	559
Waddell, Charles J., Manchester, Great Britain. Tap for fluids.....	224,495	Feb. 10	596	172	17	321
Waddy, William L., Peytona, Ky. Harrow.....	227,862	May 18	891	253	17	1143
Wade, Robert C., Hickory Plains, Ark. Horse-power.....	225,445	Mar. 9	543	156	17	560
Wade, William W., Medford, Mass. Machine for making buttons.....	228,233	June 1	85	26, 27	17	1241
Wadkins, John D., Charlottesville, Ind. Holdback for vehicles.....	228,006	May 25	1090	310	17	1185
Wadleigh, Royal H., et al. (See Pierce, George H., assignor.)						
Wadlington, John M. (See Talley and Wadlington.)						
Wadsworth, Omar A. (See Connor and Wadsworth.)						
Waelte, Henry E., San José, Cal. Stirrup.....	233,647	Oct. 26	1075	299	18	940
Wagers, John T. and O. G., Stewartville, Mo. Gate.....	225,086	Mar. 2	130	37	17	479
Wagers, Owen G. (See Wagers, John T. and O. G.)						
Wagg, Hartwell K., and A. J. Shaw, Auburn, assignors to Mousam Manufacturing Com-pany, Kennebunk, Me. Leather-stripping machine.....	234,094	Nov. 2	322	89	18	1040
Waggoner, George E. (See Waggoner, Jacob and G. E.)						
Waggoner, Jacob and G. E., Ferrin, Mo. Harrow.....	225,444	Mar. 9	542	156	17	560
Wagner, A., et al. (See Pawling, Joseph H., assignor.)						

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Wagner, Anna G. (See Wagner, Ansbert H., assignor.)						
Wagner, Ansbert H., assignor to A. G. Wagner, Chicago, Ill. Boiler.	233,582	Oct. 19	974	269	18	915
Wagner, Ansbert H., assignor to A. G. Wagner, Chicago, Ill. Steam-engine for traction-vehicles	234,824	Nov. 23	1254	337 338	18	1217
Wagner, Ferdinand F., Harrisburg, Pa. Paper-ruling machine.	231,694	Aug. 31	1268	357	18	478
Wagner, Franz, assignor to G. W. N. Yost, New York, N. Y. Type-writing machine.	232,913	Oct. 5	142	38	18	761
Wagner, George, Swanville, Pa. Tilting door.	230,502	June 29	1618	446	17	1499
Wagner, Gustavus G., New York, N. Y. Indicating time by gas-pressure.	234,358	Nov. 9	643	175	18	1102
Wagner, Hermann, Elizabeth, N. J. Permutation-padlock.	233,581	Oct. 19	973	268	18	914
Wagner, Jacob, Jr., and L., assignors, by mesne assignment, to Wagner Wire Sewing Machine Company, Chicago, Ill. Wire-sewing machine.	227,138	May 4	58	16, 17	17	987
Wagner, Jacob, Jr., and L., assignors, by mesne assignment, to Wagner Wire Sewing Machine Company, Chicago, Ill. Broom.	227,139	May 4	63	18	17	988
Wagner, Jacob, Jr., and L., assignors, by mesne assignment, to Wagner Wire Sewing Machine Company, Chicago, Ill. Needle for sewing-machines.	227,192	May 4	122	35	17	997
Wagner, Louis. (See Wagner, Jacob, Jr., and L.)						
Wagner, Peter, New York, N. Y. Armature for electro-magnets.	227,863	May 18	891	254	17	1143
Wagner, Peter, New York, N. Y. Calendar-clock.	234,355	Nov. 9	639	174	18	1101
Wagner, Richard, and H. E. Friedrich, Holyoke, Mass. Woven-wire bed and bolster.	225,737	Mar. 23	899	262	17	641
Wagner, Walter M. (See Duff, John T., assignor.)						
Wagner Wire Sewing Machine Company. (See Wagner, Jacob, Jr., and L., assignors.)						
Wailes, John W. (See Taylor and Wailes.)						
Wainwright, William T., Dry Sawmill, Pa. Bench-plane.	230,088	July 13	662	185	18	117
Wait, John H., Opelika, Ala. Automatic railway-switch.	223,559	Jan. 13	428	114	17	88
Wait, Justin B., et al. (See Seofield, Levi, assignor.)						
Waite, Charles N., Manchester, N. H. Apparatus for testing lubricating-oils.	226,639	Apr. 20	598	167	17	867
Waite, George L., assignor to S. L. Garrett, Philadelphia, Pa. Railway-car.	234,507	Nov. 16	840	225	18	1143
Waite, Richard, Boston, Mass. Metallizing fibrous, cellular, and porous substances.	225,186	Mar. 2	228	64	17	495
Wakefield, Clovis W. (See Wohlfarth and Wakefield.)						
Wakefield, John E., Worcester, Mass. Folding rocking-chair.	225,956	Mar. 30	1177	334	17	700
Wakefield, John E., Worcester, Mass. Folding chair.	231,513	Aug. 24	1055	296	18	438
Wakefield, John E., Worcester, Mass. Folding tilting chair.	235,184	Dec. 7	145	41	18	1306
Wakefield, John E., assignor to E. W. Vail, Worcester, Mass. Folding chair and settee.	225,957	Mar. 30	1178	334	17	700
Wakefield, Ralph B., Springfield, Mass. Cooking device.	224,252	Feb. 3	315	91	17	255
Wakely, Archibald S., Milford, Mich. Wagon-platform gearing.	233,648	Oct. 26	1075	299	18	941
Wakeman, Charles E. (See Hitchcock and Wakeman.)						
Wakeman, Harwood, New York, N. Y. Armor for flexible tubing.	223,262	Jan. 6	68	17	17	14
Wakeman, John M., Watkins, N. Y. Sulky-drag.	235,892	Dec. 21	943	263	18	1455
Walden, Edwin, trustee. (See Proctor, David R., assignor.)						
Walden, W. K. W. (See Smith, Eldridge J., assignor.)						
Waldron, Charles F., Boston, Mass. Harness-rossette.	233,583	Oct. 19	976	270	18	915
Waldron, Edward, Philadelphia, Pa. Rotary engine.	225,030	Mar. 2	59	16 17 18	17	406
Waldron, John, New Brunswick, N. J. Turn-round for paper-drying machines.	234,359	Nov. 9	644	175	18	1103
Walke, Henry A., Hamilton, Ohio. Fountain-pen.	235,396	Dec. 14	414	116	18	1358
Walker, Alfred, Sing Sing, assignor to J. P. Robinson, trustee, New York, N. Y. Machine for molding and compressing artificial blocks or bricks.	226,256	Apr. 6	122	34, 35	17	767
Walker, Allen M., Butler, Ga. Shutter-fastener.	232,789	Sept. 28	1101	302	18	728
Walker, Andrew, Cincinnati, Ohio. Bottle-stopper.	233,303	Oct. 12	624	172	18	849
Walker, Benjamin F., Derrick City, Pa. Clasp-packer for well-tubing joints.	234,825	Nov. 23	1255	338	18	1217
Walker, Charles W. (See Gore, Henry A., assignor.)						
Walker, David A., assignor of two-thirds interest to G. R. Harris, Salem, Ind. Straw-cutter.	223,781	Jan. 20	687	185	17	139
Walker, Dexter H. (See Durand, Louis, assignor.)						
Walker, Elias M., Gallatin, Mo. Washing-machine.	227,140	May 4	64	18	17	988
Walker, George A. (See Bacon, Charles H., assignor.)						
Walker, James. (See Newell, John H., assignor.)						
Walker, John, Indianapolis, Ind. Shaft-coupling.	230,843	Aug. 3	288	82	18	294
Walker, John H., Greenville, S. C. Cotton-seed planter.	234,508	Nov. 16	841	225	18	1143
Walker, Joseph H. (See Powers and Walker.)						
Walker, Lambert R., and C. W. W. Ball, New York, N. Y. Lamp.	232,318	Sept. 14	528	147	18	620
Walker, Lewis. (See Allwood, Thomas, assignor.)						
Walker, Martin W., and G. E. Williams, Sing Sing, N. Y. Screw-cutting die-stock.	232,785	Sept. 28	1096	301	18	728
Walker, Martin W., and G. E. Williams, Sing Sing, N. Y. Oil-stove wick-trimmer.	233,822	Oct. 26	1270	355	18	974
Walker, Nathan U., Wellsville, Ohio. Chimney-cap.	231,463	Aug. 24	999	281	18	430
Walker, Nathan U., Wellsville, Ohio. Chimney-bonnet and wind-guard.	233,584	Oct. 19	977	270	18	915
Walker, Nathan U., Wellsville, Ohio. Roofing.	235,595	Dec. 14	663	187	18	1400
Walker, O. E. (See Edleblute, Lucius S., assignor.)						
Walker, Samuel, Birmingham, England. Treating molten copper for making cast hollow cylinders and other castings.	230,369	July 20	1011	.....	18	181
Walker, Thomas, Philadelphia, Pa. Stuffing-box.	228,957	June 15	973	265	17	1393
Walker, Thomas H., Kansas City, Mo. Automatic faucet.	229,503	June 29	1618	446	17	1499
Walker, William, Brooklyn, assignor to E. S. Levi, New York, N. Y. Trimming.	223,779	Jan. 20	685	184	17	138
Walker, William, Brooklyn, assignor to E. S. Levi, New York, N. Y. Machine for pressing and creasing ruffled fabrics.	225,067	Mar. 16	806	236	17	616
Walker, William, Brooklyn, assignor to E. S. Levi, New York, N. Y. Chain of chain fluting-machines.	230,091	July 13	664	186	18	117
Walker, William, Allegheny, Pa. Hatchway-guard.	235,048	Nov. 30	1531	412	18	1270
Walker, William E., Taunton, Mass. Stove-shelf.	229,572	July 6	78	21	18	21
Walker, William P., Macon, Mo. Roof.	230,161	July 20	768	214	18	142
Walkley, Charles R., Chubbusco, Ind. Bob-sleigh.	233,585	Oct. 19	977	270	18	915
Wall, Michael T. (See Heimann and Wall.)						
Wall, Patrick, Allegheny, Pa. Mill-lamp.	228,497	June 8	406	111	17	1300
Wall, Patrick, Allegheny, Pa. Oil-can.	231,634	Aug. 24	1188	333	18	459
Wall, Thomas T. (See Jones, Jacob D., assignor.)						
Wallace, Hary, assignor to E. W. Parker, Bradford, Pa. Steam-trap.	234,095	Nov. 2	323	89	18	1040
Wallace, Jacob B., and Z. Davis, Canton, Ohio. Vapor-burner.	223,966	Jan. 27	929	248	17	187
Wallace, Levi. (See Chapman, Charles H., assignor.)						
Wallace, Lorenzo, Leavenworth, Kans. Latch.	231,872	Aug. 31	1491	418	18	512
Wallace, Robert. (See Fowler, Maltby, assignor.) (Reissue.)						
Wallace & Sons. (See Bryant, Edgar L., assignor.)						
Wallace, Thomas. (See Stuart, Levi B., assignor.)						
Walldorf, Henry W. (See Frisbie, Edgar G., assignor.)						
Waller, Joseph W., Baltimore, Md. Shoe-maker's cabinet or bench.	224,253	Feb. 3	316	91	17	253

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Wallin, Charles E., Salt Lake City, Utah Ter. Horse-cover.....	227,328	May 4	270	79	17	1022
Wallin, Charles E., Salt Lake City, Utah Ter. Bridle-bit.....	235,596	Dec. 14	664	188	18	1400
Walling, David C., Kendallville, Ind. Windmill-pump.....	232,577	Sept. 21	836	232	18	678
Walling, Peter, Salem, Mass. Bridge-guard.....	227,604	May 18	666	189	17	1108
Wallis, Claude I., Memphis, Ala. Combined marking pen and brush.....	230,089	July 13	662	185	18	117
Wallis, Edward N., Philadelphia, Pa. Pump.....	231,124	Aug. 10	606	172	18	352
Wallis, Theodore, Scipio, N. Y. Frame.....	224,973	Feb. 24	1168	334	17	440
Walsh, Francis A., Chicago, Ill. Sheet-metal can.....	225,499	Mar. 16	615	178	17	583
Walsh, Francis A., Chicago, Ill. Seaming-machine.....	225,500	Mar. 16	616	179	17	583
Walsh, Francis A., Chicago, Ill. Seaming-machine.....	228,234	June 1	90	27	17	1241
Walsh, Francis A., Chicago, Ill. Seaming-machine.....	228,235	June 1	92	27	17	1241
Walsh, Francis A., Chicago, Ill. Sheet-metal can.....	231,744	Aug. 31	1331	374	18	488
Walsh, James D., Coke, Tex. Cotton planter and cultivator.....	230,451	July 27	1153	325	18	210
Walsh, James F., assignor of two-thirds interest to W. J. Ellinwood and G. D. Holton, Chicago, Ill. Horse-collar pad.....	232,219	Sept. 14	410	114	18	600
Walsh, John, and J. Dufot, Newton, Iowa. Bar-fence.....	223,780	Jan. 20	686	185	17	139
Walsh, John, assignor to H. W. Collender, New York, N. Y. Billiard-table.....	226,430	Apr. 13	329	94	17	814
Walsh, John, New York, N. Y. Grate-frame.....	226,640	Apr. 20	600	167	17	868
Walsh, Robert F., Kinsale, Ireland. Water gage and faucet.....	235,473	Dec. 14	515	149	18	1375
Walter, William C., Philadelphia, Pa. Printing-surface.....	232,786	Sept. 28	1097	301	18	728
Walterhouse, George W., Sr., Buffalo, N. Y. Lamp-stove.....	234,153	Nov. 9	399	109	18	1060
Walters, Benjamin F., Norfolk, Va. Apparatus for cleaning and scouring peanuts, &c.....	224,810	Feb. 24	996	282	17	412
Walters, Benjamin F., Norfolk, Va. Cleaning and separating nuts.....	228,708	June 8	638	173	17	1335
Walters, Benjamin F., Norfolk, Va. Mode of and apparatus for cleaning and polishing peanuts. (Reissue).....	9,360	Aug. 31	1507	422	18	515
Walters, Benjamin F., Norfolk, Va. Cleaning and separating nuts. (Reissue).....	9,361	Aug. 31	1509	423	18	516
Walters, Benjamin F., Norfolk, Va. Elevator.....	235,597	Dec. 14	604	188	18	1400
Walters, Charles D., Harrisburg, assignor of one-half interest to A. H. Ege, Mechanicsburg, Pa. Square and bevel instrument.....	230,975	Aug. 10	443	127	18	326
Walters, Henry T., and W. Voorhis, assignors of one-third to C. West, Bushnell, Ill. Acoustic telephone.....	235,049	Nov. 30	1533	413	18	1270
Walthour, John F., assignor of one-half interest to W. H. Chenery, San Francisco, Cal. Rowing-machine.....	228,845	June 15	856	234	17	1376
Walton, Daniel B. T., Milton, Ky. Fertilizer-dropper.....	229,504	June 29	1619	446	17	1500
Walton, Elias H., Cincinnati, Ohio. Fire-proof shutter.....	227,934	May 25	994	285	17	1171
Walton, Frederick, Twickenham, England. Manufacture of floor-cloths and fabrics suitable for wall hangings or decorations, and for other uses.....	231,944	Sept. 7	77	20	18	536
Walton, Frederick, Twickenham, county of Middlesex, England. Manufacture of machine-beltting.....	234,360	Nov. 9	646	.....	18	1103
Walton, George W. (See Tenney and Walton.)						
Walton, Joseph J., New York, N. Y. Reflector.....	232,092	Sept. 7	257	71	18	566
Walton, Thomas, Wheeling, W. Va. Globe for lanterns. (Reissue).....	9,515	Dec. 21	981	272	18	1461
Walton, William R., Freeport, Ill., assignor of one-half interest to P. S. Kally. Hand-truck.....	230,844	Aug. 3	289	62	18	295
Walworth, Caleb C., Boston, Mass. Steam-radiator.....	230,368	July 20	1010	286	18	181
Wampach, John, Shakopee, Minn. Fifth-wheel.....	223,782	Jan. 20	689	185	17	139
Wands, John C., Louisville, Ky. Car-roof.....	224,496	Feb. 10	597	172	17	321
Wansbrough, Edmund, assignor to A. Speer & Sons, Pittsburg, Pa. Clevis.....	226,137	Mar. 30	1382	390	17	732
Wansbrough, Edmund, and W. W. Speer, Pittsburg, Pa. Plow.....	226,641	Apr. 20	600	167	17	868
Wantz, David C. (See Bupp, Mathias W. C., assignor.)						
Ward, Alexander F., Chatham, Canada, assignor of one-half interest to S. C. Blinn and M. A. Rowe, Detroit, Mich. Hoop-coiling-machine.....	223,968	Jan. 27	931	249	17	187
Ward, Edward G., Brooklyn, N. Y. Blacking-box.....	224,313	Feb. 10	396	111	17	288
Ward, Electus B., Detroit, Mich. Railway freight-car.....	229,778	July 6	309	86	18	53
Ward, Electus B., Detroit, Mich. Sewer-trap.....	236,125	Dec. 23	1327	364	18	1524
Ward, Eugene. (See Butler, Francis C., assignor.)						
Ward, Henry D., Worcester, Mass. Bathing apparatus.....	233,304	Oct. 12	625	173	18	849
Ward, Jersey, Ottumwa, Iowa. Window-screen.....	235,660	Dec. 21	742	211	18	1420
Ward, John, Lansingburg, N. Y., assignor to Ludlow Valve Manufacturing Company. Hydrant.....	224,061	Feb. 3	105	31	17	221
Ward, John B., San Francisco, Cal. Steam generator and superheater.....	223,825	Jan. 27	759	203	17	161
Ward, John B., San Francisco, Cal. Screw-propeller.....	226,660	Apr. 13	370	106	17	820
Ward, John B., San Francisco, Cal. Steam-boiler.....	231,874	Aug. 31	1492	418	18	513
Ward, Lyman H., St. Mary's, Tex. Apparatus for obtaining a vacuum.....	230,512	July 27	1216	342	18	221
Ward, Michael, assignor of two-thirds interest to W. J. Mullins and J. S. Shadden, Ashland, Tex. Seed-planter.....	231,514	Aug. 24	1055	296	18	438
Ward, Seth, Princeton, Ind. Back-hand hook and buckle.....	226,135	Mar. 30	1381	389	17	732
Ward, Seth, Princeton, Ind. Breast-strap slide.....	228,145	May 25	1234	350	17	1209
Ward, William H., Pittsburg, Pa. Car-coupling.....	230,370	July 20	1012	286	18	181
Ward, William H., Pittsburg, Pa. Three-way cock.....	230,371	July 20	1014	287		
Wardall, Alonzo. (See Larsen, Theodore N., assignor.)						
Warden, Benjamin J., Cincinnati, Ohio. Carriage-dash frame.....	225,669	Mar. 16	808	236	17	617
Warden, Benjamin J., Cincinnati, Ohio. Fastening attachment for carriage-dashes.....	228,575	June 8	502	134		
Warden, Benjamin J., Cincinnati, Ohio. Carriage-bow.....	230,372	July 20	1015	287	18	181
Warden, Henry, Hannibal, Mo. Preserving meat.....	226,136	Mar. 30	1381	.....	17	732
Wardwell, Frank W., Cambridge, and C. E. Lettenmayer, West Lamerville, Mass.; said Lettenmayer assignor to said Wardwell. Book-cover protector.....	234,096	Nov. 2	324	89	18	1040
Wardwell, Simon W., Jr., Providence, R. I. Manufacture of sewed articles of leather.....	235,050	Nov. 30	1534	413	18	1271
Wardwell, Thomas G. (See Ware, Horace, assignor.)						
Wardwell, William S., Rutland, Vt., assignor to G. Frost, G. H. Phelps, and G. A. Frost. Garter. (Reissue).....	9,143	Apr. 6	263	77	17	794
Ware, Elijah, Omaha, Nebr. Movement for watches and clocks.....	223,417	Jan. 6	237	62	17	43
Ware, Elijah, Omaha, Nebr. Spring-power for watches and clocks.....	223,418	Jan. 6	238	63	17	43
Ware, George W. (See Burridge, Thomas H., assignor.)						
Ware, Horace, Marblehead, assignor to himself and T. G. Wardwell, Methuen, Mass. Ice-grooving plow.....	231,201	Aug. 17	715	200	18	376
Warfield, Ambrose P. (See Smith, Desbrow M., assignor.)						
Waring, Edward J., et al. (See Magill, Robert, assignor.)						
Waring, George E., Jr., Newport, R. I. Flush-tank.....	223,826	Jan. 27	761	503	17	161
Waring, John T., Boston, Mass. Apparatus for felting hat-bodies.....	227,329	May 4	271	80	17	1022
Waring, John T., Boston, Mass. Process and apparatus for felting hat-bodies.....	227,330	May 4	273	80	17	1023
Waring, John T., Boston, Mass. Apparatus for felting hat-bodies.....	227,331	May 4	274	80	17	1023

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Waring, John T., Boston, Mass. Art of and apparatus for felting hat-bodies, &c.	227,332	May 4	276	80	17	1023
Waring, John T., Boston, Mass. Felting hat-bodies, &c.	228,704	June 8	640	174	17	1335
Waring, John T., Boston, Mass. Machinery for felting hat-bodies, &c.	231,125	Aug. 10	607	172	18	353
Waring, John T., Boston, Mass. Machinery for felting hat-bodies, &c.	231,873	Aug. 31	1492	418	18	513
Warne, Mahlon, Philadelphia, Pa. Artificial-bird target.	224,254	Feb. 3	316	91	17	255
Warne, Mahlon, Philadelphia, Pa. Ball-trap.	228,959	June 15	975	266	17	1393
Warner, Ernest P., Chicago, Ill. Electrical annunciator.	232,093	Sept. 7	258	71	18	566
Warner, Harry T., Newark, N. J. Curtain-bracket.	225,894	Mar. 23	1076	307	17	670
Warner, Ira D., et al. (See Curtis, Augustine B., assignor.)						
Warner, Ira D., and J. C. Tallman, Bridgeport, Conn. Corset-stiffener.	234,757	Nov. 23	1166	314	18	1203
Warner, Israel V., assignor of one-half interest to A. J. Mowry, Milan, Ohio. Steam balance-valve and cut-off.	232,426	Sept. 21	674	186	18	650
Warner, Jacob P., Elkhart, Ind. Mechanic's horse.	226,431	Apr. 13	330	95	17	815
Warner, Jasper P., Dowagiac, Mich. Gripe for spring harrow and cultivator teeth.	233,718	Oct. 26	1152	321	18	953
Warner, John E. (See Perkins and Allen, assignors.)						
Warner, Lucien C. (See Tallman, John C., assignor.)						
Warner, Lucien C. (See Tallman, John C., assignor.) (Reissue.)						
Warner, Warren, Cincinnati, Ohio. Piston.	234,374	Nov. 9	661	180	18	1105
Warner, Wyllys H. (See Phillips, William L., assignor.)						
Warnock, Adam, Galt, Ontario, Canada. Spring-gear for carriages.	235,920	Dec. 28	1075	297	18	1483
Warren, Benjamin F., Cumberland Mills, Me., assignor to S. D. Warren & Co., Boston, Mass. Paper-pulp screen.	223,967	Jan. 27	929	248	17	188
Warren & Co., S. D. (See Warren, Benjamin F., assignor.)						
Warren, Cyrus M., Brookline, Mass. Roofing and paving material.	227,080	Apr. 27	1125	.....	17	963
Warren, Cyrus M., Brookline, Mass. Roofing and paving material.	228,960	June 15	977	.....	17	1393
Warren, Cyrus M., Brookline, Mass. Roofing and paving material.	234,442	Nov. 16	767	.....	18	1131
Warren, Edward, Jackson, Mich. Whiffletree.	226,642	Apr. 20	602	167	17	868
Warren, Edward L., assignor to Washburn & Moen Manufacturing Company, Worcester, Mass. Nail for wire fences.	228,236	June 1	93	28	17	1241
Warren, Edwin W., Cambridge, N. Y. Ironing-board clamp.	225,187	Mar. 2	230	65	17	495
Warren, George H., Tama City, Iowa. Sulky-plow.	225,668	Mar. 16	807	236	17	616
Warren, George H., Tama City, Iowa. Wrench.	230,595	July 27	1308	369	18	237
Warren, Haddock L., Alma, assignor to himself and J. L. Zeckefoose, Waverly, Ohio. Fan-blower for thrashers.	234,356	Nov. 9	642	175	18	1102
Warren, Jabez T., Le Roy, N. Y. Horse-power equalizer.	228,576	June 8	502	135	17	1314
Warren, John, Detroit, Mich. Spring-motor.	226,813	Apr. 20	780	217	17	897
Warren, John, Newton Factory, Ga. Cotton-chopper.	227,864	May 18	892	254	17	1144
Warren, Robert W., San Francisco, Cal. Explosive compound.	227,601	May 11	593	.....	17	1086
Warren, S. D. (See Newcomb, Erwin B., assignor.)						
Warren, Sheldon L., Bridgeport, Conn. Bottle-stopper.	229,214	June 22	1268	348	17	1444
Warren, William, Sae City, Iowa. Rain-water cut-off.	230,681	Aug. 3	102	29	18	263
Warren, William A., Princeton, Ill. Valve for water-pipes for watering stock.	226,812	Apr. 20	779	217	17	897
Warren, William H., New York, N. Y. Calipers and dividers.	228,958	June 15	974	265	17	1393
Warren, William W. (See Bryant, Hezekiah H., assignor.)						
Warrington, Curtis H., West Chester, Pa. Road-engine.	235,051	Nov. 30	1535	413	18	1271
Warrington, David, Salem, Ohio. Easel for carriage-painters.	223,618	Jan. 13	500	135	17	99
Warth, Albin and H., Stapleton, N. Y. Machine for cutting textile and other fabrics.	225,031	Mar. 2	63	18	17	467
Warth, Albin, Stapleton, N. Y. Machine for cutting textile fabrics. (Reissue.)	9,231	June 1	316	87	17	1277
Warth, Albin, Stapleton, N. Y. Machine for cutting textile and other materials. (Reissue.)	9,232	June 1	318	88	17	1278
Warth, Albin, Stapleton, N. Y. Rein-holder.	228,705	June 8	642	174	17	1335
Warth, Henry. (See Warth, Albin and H.)						
Warwick, William, Pittsburg, Pa. Tea-kettle.	224,118	Feb. 3	172	49	17	232
Washburn, Benjamin D., Boston, Mass. Strap-hinge.	236,124	Dec. 28	1326	364	18	1524
Washburn & Moen Manufacturing Company. (See Ayres and Decker, assignors.)						
Washburn & Moen Manufacturing Company. (See Lenox, Edwin S., assignor.)						
Washburn & Moen Manufacturing Company. (See Morgan and Daniels, assignors.)						
Washburn & Moen Manufacturing Company. (See Stover, Daniel C., assignor.)						
Washburn & Moen Manufacturing Company. (See Warren, Edward L., assignor.)						
Washburn, William L., Brooklyn, N. Y. Curtain-fixture.	236,126	Dec. 28	1328	364	18	1524
Waterbury Button Company. (See Smith, Joseph R., assignor.)						
Waterbury Clock Company. (See Lewis, Charles S., assignor.)						
Waterhouse, Addison G., and B. B. Brewer, Sacramento, Cal. Steam and air engine.	232,158	Sept. 14	337	94	18	587
Waterhouse, Addison G., and B. B. Brewer, Sacramento, Cal. Engine-governor.	233,175	Oct. 12	468	129	18	822
Waterman, John S., Ithaca, N. Y. Corn-sheller.	233,649	Oct. 26	1076	299	18	941
Waterman, Julius, assignor to Waterman & Mayer, New York, N. Y. Finishing corsets.	226,375	Apr. 6	249	73	17	791
Waterman & Mayer. (See Waterman, Julius, assignor.)						
Waters, Frank M., and G. H. Earnest, Springfield, Ohio. Oscillating gearing.	230,092	July 13	665	186	18	117
Waters, Frank M., and G. H. Earnest, Springfield, Ohio. Oscillating gearing.	234,354	Nov. 9	638	174	18	1101
Waters, Jabez M., Cincinnati, Ohio. School-slate hinge.	234,215	Nov. 9	483	132	18	1075
Waters, William E., Orange, N. J. Book-press.	234,097	Nov. 2	325	90	18	1040
Waterston, James B. (See Zimmerman and Waterston.)						
Watkeys, Henry, Syracuse, N. Y. Throttle-valve for locomotive and other engines. (Reissue.)	9,100	Feb. 24	1187	340	17	444
Watkeys, Henry, Syracuse, N. Y. Valve-seat for steam-cylinders. (Reissue.)	9,386	Sept. 21	856	237	18	681
Watkins, Alfred E., assignor of part interest to S. H. and J. F. Adams and J. S. Williams, Baltimore, Md. Gas-generator for hydrocarbon-furnaces.	229,344	June 29	1434	{ 395 } { 396 }	17	1474
Watkins, Charles A., Greek Street, Soho Square, England. Brush-making machinery.	229,289	June 29	1361	373	17	1465
Watkins, Charles A., Greek Street, Soho Square, county of Middlesex, England. Brush-machine.	232,576	Sept. 21	835	232	18	678
Watkins, Charles D., New York, N. Y. Bath-closet.	230,453	July 27	1155	326	18	210
Watkins, Daniel B., Newark, N. Y. Heel-plate for boots and shoes.	224,365	Feb. 10	457	131	17	298
Watkins, Edmund T., Hyde Park, Mass. Smoke-conductor for railway-trains.	235,474	Dec. 14	516	149	18	1375
Watkins, Frank, New York, N. Y. Box for holding ice-cream, &c.	230,452	July 27	1154	325	18	210
Watkins, Frank M. (See Burnett and Watkins.)						
Watkins, Gardner A., assignor to American Chair Seat Company, Gardner, Mass. Chair-seat. (Reissue.)	9,021	Jan. 6	251	67	17	46
Watkins, George, et al. (See Gonne, William H., assignor.)						
Watkins, George W., et al. (See Champagne, Frederick, assignor.)						
Watkinson, George, New Haven, Conn., assignor to L. Candee & Co. Rubber boot.	223,783	Jan. 20	689	186	17	139
Watkinson, George, assignor to L. Candee & Co., New Haven, Conn. India-rubber boot.	228,498	June 8	407	111	17	1300
Watkinson, George H., and C. A. Whelan, Sun Prairie, Wis. Bulletin-board.	225,446	Mar. 9	544	156	17	560
Watkinson, Robert, Salford, county of Lancaster, England. Coupling for hose and other pipes.	235,475	Dec. 14	518	150	18	1376
Watrous, Edgar P., Moravia, N. Y. Well-boring apparatus.	235,319	Dec. 7	301	85	18	1331



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Watson, Addison, <i>et al.</i> (See Wilson, Jacob W., assignor.) (Reissue.)						
Watson, Charles S., assignor of one-half interest to A. Middleton, Philadelphia, Pa. Ice-pick	225,670	Mar. 16	809	237	17	617
Watson, Daniel, assignor of one-half interest to J. Mahony, Newport, R. I. Sidewalk	223,784	Jan. 20	690	186	17	139
Watson, Frank. (See Millington and Watson.)						
Watson, Henry F., Philadelphia, Pa. Combined window blind and shutter	227,397	May 11	363	107	17	1048
Watson, James, London, England. Hydraulic press	223,785	Jan. 20	691	{ 186 187 }	{ 17 17 }	139
Watson, James C. (See Watson, William J., assignor.)						
Watson, James H., Tawas City, Mich. Feed and gig work for saw-mills	224,749	Feb. 17	890	255	17	381
Watson, John. (See Fisher and Watson.)						
Watson, John E., Louisville, Ky. Telephonic transmitter	226,376	Apr. 6	250	73	17	791
Watson, Leonard A. (See Low, Charles H., assignor.)						
Watson, Leonard A. (See Richmond, Gilbert M., assignor.)						
Watson, Mary. (See Nesbitt, Josiah, assignor.)						
Watson, Peter. (See Jemison and Watson.)						
Watson, Richard H., Leadville, Colo. Machine for framing timber	232,575	Sept. 21	833	{ 231 232 }	{ 18 18 }	677
Watson, Samnel. (See Ogborn, Harrison, assignor.)						
Watson, Thomas A. (See Anders and Watson.)						
Watson, Thomas A., Everett, Mass. Electric switch-board	239,345	June 29	1437	396	17	1474
Watson, Thomas A., Everett, Mass. Microphone-transmitter	231,247	Aug. 17	765	214	18	384
Watson, Thomas A., Everett, Mass. Magneto-electric telephone	231,739	Aug. 31	1325	373	18	487
Watson, Thomas A., Everett, Mass. Telephone-switch	232,159	Sept. 14	338	95	18	587
Watson, Thomas A., Everett, Mass. Telephone-stand	232,787	Sept. 28	1097	301	18	728
Watson, Thomas A., Everett, Mass. Telephone-circuit	232,788	Sept. 28	1098	301	18	728
Watson, Thomas A., Everett, Mass. Vibrating surface for sound-transmission	232,862	Oct. 5	78	22	18	752
Watson, Thomas A., Everett, Mass. Telephone signal apparatus	233,899	Nov. 2	82	22	18	1000
Watson, Thomas A., Everett, Mass. Telephone-exchange system	234,154	Nov. 9	400	109	18	1060
Watson, Thomas A., Boston, Mass., assignor to National Bell Telephone Company. Telephonic fire-alarm	227,141	May 4	65	18, 19	17	988
Watson, William J. (See Keeler, Sanford, assignor.)						
Watson, William J., Marion, S. C. Stump-puller	234,357	Nov. 9	643	175	18	1102
Watson, William J., Benton, assignor of one-half to J. C. Watson, Benton Center, N. Y. Portable swing	236,127	Dec. 28	1329	365	18	1525
Watson, William O., Albany, Ga. Cotton-gin	235,185	Dec. 7	145	42	18	1306
Watt & Brothers, J. H. (See Watt, James H., assignor.)						
Watt, George, Richmond, Va. Plow	224,750	Feb. 17	891	255	17	381
Watt, James, Watertown, Mass. Steam-hammer	227,460	May 11	433	125	17	1059
Watt, James H., assignor to J. H. Watt & Brothers, Barnesville, Ohio. Car-wheel	234,098	Nov. 2	325	90	18	1040
Wattles, Joseph W., Canton, Mass. Ring for ring-spinning. (Reissue.)	9,382	Sept. 21	850	237	18	680
Wattles, Joseph W., Canton, Mass. Yarn-protector and traveler-clearer for ring-spinning frames	233,650	Oct. 26	1077	299	18	941
Wattles, Joseph W., Canton, Mass. Mechanism for supporting, &c., spindles of ring-spinning frames	234,897	Nov. 30	1349	363	18	1239
Watts, Benjamin M., Phoenix, Ariz. Ter. Portable baling-press	225,773	Mar. 23	945	273	17	648
Watts, Benjamin M., Los Angeles, Cal. Hay-press	234,509	Nov. 16	842	226	18	1143
Watts, J. Henry C., Baltimore, Md. Electrical switch-pin	223,969	Jan. 27	933	249	17	187
Watts, J. Henry C., Baltimore, Md. Galvanic-battery case	227,665	May 18	893	254	17	1143
Watts, J. Henry C., Baltimore, Md. Tip for electric conductors	230,090	July 13	663	186	18	117
Watts, Joseph E., Lawrence, Mass. Pressure-regulator	235,186	Dec. 7	146	42	18	1306
Watts, Martin V., Brookhaven, Miss. Liniment	230,365	July 20	1008		18	180
Wagaman, John, Los Angeles, Cal. Dry-ore washer	234,826	Nov. 23	1256	338	18	1218
Wavish, James, Leytonstone, England. Steam-boiler furnace	230,373	July 20	1016	287	18	182
Way, Elijah M., Geneseo, Ill. Milk-cooler	230,211	July 20	826	234	18	152
Way, John T. (See Latham and Way.)						
Way, Russell F. (See Dudley, George W., assignor.)						
Way, Thomas R., Springfield, Ohio. Tap-wrench	226,643	Apr. 20	602	168	17	868
Way, Thomas R., assignor to E. R. Hotsenpiller, Springfield, Ohio. Coal-fork	234,633	Nov. 16	1008	269	18	1171
Way, William O., Buckland, Conn. Burnishing-machine	235,921	Dec. 28	1075	298	18	1484
Wayne Agricultural Company. (See Fulghum, Jesse P., assignor.) (Reissue.)						
Wayne, Horace A., Manlius Station, N. Y. Time-signal for railways	234,634	Nov. 16	1009	269	18	1171
Wayt, John E., <i>et al.</i> (See Morgan, Lewis B., assignor.)						
Weage, Collins A. (See Bailey and Weage.)						
Weatherford, Perry R., assignor to himself and A. King, Waverly, Ky. Rotary and drag harrow	229,505	June 29	1620	446	17	1500
Weaver, Henry M. (See Ogden and Weaver.)						
Weaver, James A., East Saginaw, Mich. Shoe	229,290	June 29	1363	373	17	1465
Weaver, James H., Chicago, Ill. Envelope	231,875	Aug. 31	1494	419	18	513
Weaver, James N., Waverly, N. Y. Crown-sheet attachment	227,336	May 4	279	81, 82	17	1023
Weaver, Loyd, Oxford, assignor to Fowler Nail Company, Seymour, Conn. Machine for finishing horseshoe-nail blanks	223,560	Jan. 13	430	114	17	88
Weaver, William, Phoenixville, Pa. Coal mining and quarrying machine	228,148	May 25	1237	351	17	1210
Weaver, William, Phoenixville, Pa. Coal mining and drilling machine	229,781	July 6	311	87	18	54
Webb, Albert F., and J. L. Duncan, Franklin, Ind. Automatic gate-latch	226,577	Apr. 13	498	140	17	840
Webb, Elisha, Philadelphia, Pa. Lubricator	233,651	Oct. 26	1078	300	18	941
Webb, George, Johnstown, Pa. Apparatus for forming molten metal into ingots, &c.	223,561	Jan. 13	430	{ 114 115 116 117 }	{ 17 17 17 17 }	88
Webb, George, Johnstown, Pa. Apparatus for forming molten metal into ingots, &c.	223,562	Jan. 13	432	{ 117 118 119 }	{ 17 17 17 }	89
Webb, George, Johnstown, Pa. Apparatus for forming molten metal into ingots, &c.	223,563	Jan. 13	435	{ 117 118 119 }	{ 17 17 17 }	89
Webb, George, Johnstown, Pa. Hardening the heads of rails	223,564	Jan. 13	437	{ 118 119 }	{ 17 17 }	89
Webb, George, Johnstown, Pa. Lining for molds for metals	223,565	Jan. 13	439		17	90
Webb, George, Johnstown, Pa. Ingot-mold	223,566	Jan. 13	440	119	17	90
Webb, George, Johnstown, Pa. Railway-rail-testing machine	223,567	Jan. 13	442	{ 119 120 }	{ 17 17 }	90
Webb, George, Johnstown, Pa. Hydraulic press	223,568	Jan. 13	444	120	17	90
Webb, Henry F., Pulaski, Tenn. Permutation-padlock	229,782	July 6	313	87	18	54
Webb, Jacob W., Somerville, Tenn. Cooking utensil	225,188	Mar. 2	231	65	17	496
Webb, Myrou S., and E. L. Myrick, Stockton, Cal. Hand-mirror holder	231,126	Aug. 10	608	172	18	353
Webb, Rodolphus L., assignor to Landers, Frary & Clark, New Britain, Conn. Inkstand	230,374	July 20	1017	288	18	182
Webber, George E., Hinckley, Ohio. Animal-poke	235,110	Dec. 7	53	16	18	1290

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Webber, Winford J., Hollister, Cal. Animal-trap	227,935	May 25	995	285	17	1171
Webbon, Ernest W., assignor to W. H. Sheaffer & Co., Philadelphia, Pa. Manufacture of bracelets	224,020	Feb. 17	758	214	17	358
Weber, August, New York, N. Y., assignor to G. E. Hodge. Hand-piece for dental engines	231,945	Sept. 7	78	21	18	537
Weber, Eduard, Brooklyn, N. Y. Device for adjusting clothes-lines	225,958	Mar. 30	1179	335	17	700
Weber, Henry, Paris, France, assignor to A. Veigel, Philadelphia, Pa. Apparatus for drawing off liquids	234,735	Nov. 23	1143	308	18	1199
Weber, Theodore A., New York, N. Y., assignor to A. Faulkner, Jersey City; said Faulkner assignor of one-half interest to J. Burton, Newark, N. J. Shuttle-motion for looms	232,319	Sept. 14	529	147	18	621
Weber, Theodore A., New York, N. Y., assignor to A. Faulkner, Jersey City, N. J. Shuttle-motion for looms	235,661	Dec. 21	743	211	18	1420
Weber, Theodore A., assignor to G. Nicholson, New York, N. Y. Bale-tie	236,128	Dec. 28	1330	365	18	1525
Webster, A. J. (See Clark, Ellery C., assignor.)						
Webster, Albert B., Manchester, N. H. Sleigh	234,104	Nov. 2	332	92	18	1042
Webster, Charles H. and W. G., Buffalo, N. Y. Stock-car	228,499	June 8	408	112	17	1301
Webster, Cyrus C., Milwaukee, Wis. Type-rubbing machine	226,377	Apr. 6	251	74	17	792
Webster, George K., Attleborough, Mass. Separable button	225,896	Mar. 23	1077	308	17	671
Webster, James, Edgbaston, Great Britain. Producing aluminium-bronze	233,900	Nov. 2	83		18	1001
Webster, John F. (See Parker and Webster.)						
Webster, Lewis H., South Bend, Ind. Freight-car door	232,578	Sept. 21	837	232	18	678
Webster, Towner K., Chicago, Ill. Shipping-can	229,507	June 29	1622	447	17	1500
Webster, Wilbur, East Jaffrey, N. H. Extension cutting-blade handle	225,895	Mar. 23	1077	308	17	671
Webster, William G. (See Webster, Charles H. and W. G.)						
Wedeles, Solomon, New York, N. Y. Means for attaching locks	235,598	Dec. 14	666	188	18	1400
Weed, F. S. (See Weed, James A., assignor.)						
Weed, James A., assignor to F. S. Weed, Binghamton, N. Y. Paper pail	230,375	July 20	1018	288	18	182
Weed, Joshua, Douglas, and M. B. Williams, Kalamazoo, Mich. Fruit-basket crate	233,448	Oct. 19	823	227	18	889
Weeks, Frank H. (See Weeks, John, and F. H.)						
Weeks, John, and F. H., Brooklyn, N. Y. Asparagus-buncher	233,051	Oct. 5	308	85	18	789
Weeks, John H., Philadelphia, Pa. Exercising-machine	232,579	Sept. 21	838	233	18	672
Weeks, Theodore C., Stoneham, Mass. Manufacture of rubber boots and shoes	233,385	Oct. 19	745	204	18	876
Weeks, Theodore C., Melrose, and F. Russell, Cambridge, Mass.; said Russell assignor to said Weeks. Apparatus for vulcanizing rubber boots and shoes	233,386	Oct. 19	747	204	18	876
Weeks, William H., Dartmouth, Nova Scotia, Canada. Liquid-hydrocarbon burner for steam-boilers, &c	233,305	Oct. 12	626	173	18	850
Wehrmann, Fritz. (See Eimbeck and Wehrmann.)						
Weichhart, John, San Francisco, Cal. Gearing mechanism for straw-cutters	225,671	Mar. 16	810	237	17	617
Weidauer, Rudolph. (See Diehn and Weidauer.)						
Weidenmann, Jacob, New York, N. Y. Apparatus for lowering coffins	230,682	Aug. 3	102	29	18	263
Weidling, Charles G., New York, N. Y. Car-coupling	223,686	Jan. 20	586	157	17	122
Weidmann, Jacob. (See Urbahn, Alwill, assignor.)						
Weidt, Charles, Pomeroy, Ohio. Reflecting-mirror	228,706	June 8	644	174	17	1336
Weihe, Louis, Connellsville, Pa. Miner's lamp	227,333	May 4	277	81	17	1023
Weikel & Smith Spice Company of Philadelphia. (See Smyser, Henry E., assignor.)						
Weiler, Aron, Crefeld, Prussia, Germany, assignor to D. Richter, New York, N. Y. Convertible traveling cap and scarf	230,845	Aug. 3	289	83	18	295
Weimer, Peter L., Lebanon, Pa. Blast-furnace	226,690	Apr. 20	651	181	17	876
Weimer, Peter L., Lebanon, Pa. Blast-furnace	223,870	Jan. 27	816	218	17	169
Weiner, Louis A., Boston, Mass. Oven-slide	224,255	Feb. 3	317	92	17	256
Weinhagen, Henry, Hoboken, N. J. Thermometer-tube	233,586	Oct. 19	978	270	18	915
Weinrich, Moriz, Vienna, Austria. Treatment and preparation of saccharine substances	234,510	Nov. 16	843	226	18	1144
Weinrich, Moriz, Vienna, Austria. Treatment and preparation of saccharine substances	234,511	Nov. 16	846	226	18	1144
Weir, Charles S., Madeira, Ohio. Musical-instrument insulator	228,962	June 15	979	266	17	1393
Weir, Daniel P., assignor of one-half to J. Jackson, Salem, Mass. Fluid-meter	234,898	Nov. 30	1350	363	18	1240
Weir, Duncan, Marshall, Tex. Wrench	232,581	Sept. 21	839	233	18	678
Weir, Frederic C., Cincinnati, Ohio. Railway-frog	230,454	July 27	1156	326	18	210
Weir, Frederic C., Cincinnati, Ohio. Railway-frog	236,120	Dec. 28	1331	365	18	1525
Weir, John B., Otsego Lake, Mich. Calk-plate for boots and shoes	225,897	Mar. 23	1078	308	17	671
Weir, Robert, Muskegon, Mich. Log-canter	233,306	Oct. 12	627	173	18	850
Weir, Robert H., assignor to S. Goodman and D. Meyers, Philadelphia, Pa. Dummy	223,419	Jan. 6	239	63	17	43
Weiss, Wendelin, St. Paul, Minn. Box-fastener	227,082	Apr. 27	1128	310	17	963
Weise, Frederic A., Brooklyn, assignor to M. H. Hagerty, New York, N. Y. Glass-mold	229,779	July 6	309	86	18	53
Weisenburgh, Louis B., Frankfort, Ky. Car-coupling	231,127	Aug. 10	609	172	18	353
Weiss, Henry W., Quakertown, Pa. Milk cooler and heater	230,976	Aug. 10	445	127	18	226
Weiss, William, assignor of one-half interest to E. Clark; said Weiss and Clark assignors of two-sixths of their interest to F. O. Minor, New Orleans, La. Baggage-seal	233,052	Oct. 5	309	85	18	789
Weisse, Ludwig, assignor to himself and E. W. F. Natter, Boston, Mass. Lathe-chuck for turning polygonal bodies	235,716	Dec. 21	812	228	18	1431
Weissenborn, Edward, Jersey City Heights, N. J. Package for pencils	228,961	June 15	978	266	17	1393
Weitzel, Jacob F., Galveston, Tex. Vegetable grater and slicer	228,147	May 25	1236	351	17	1210
Welch, Charles G., Huntingdon, Pa., assignor to G. Westinghouse, Jr. Brake-pipe coupling and valve	224,256	Feb. 3	318	92	17	256
Welch, E. B., et al. (See Proctor, David R., assignor.)						
Welch, E. B. (See Russell, Albert L., assignor.)						
Welch, Ebenezer B. (See Goodale, John, assignor.)						
Welch, James S., Dodge City, Kans. Thill-coupling	232,580	Sept. 21	839	233	18	678
Welch, Joseph, Delphos, Ohio. Ballot-box	226,689	Apr. 20	650	181	17	876
Welch Manufacturing Company, E. N. (See Hendrick, George W., assignor.)						
Welch, Peter J., Cincinnati, Ohio. Remedy for rheumatism	225,248	Mar. 9	314		17	523
Welch, Renel H., St. Louis, Mo. Index-tab	231,202	Aug. 17	715	201	18	376
Welden, John J. (See Tally, Thomas J., assignor.)						
Weldon, James G., Pittsburg, Pa. Range water-back	227,334	May 4	278	81	17	1023
Weldon, Spencer S., Rockford, Ill. Creamer	225,167	Mar. 16	811	237	17	617
Weller, John, Funkstown, Md. Thrashing, separating, and cleaning machine	235,187	Dec. 7	149	42, 43	18	1307
Weller, Marvin E. (See Lake and Weller.)						
Wellhouse, George, assignor to Taplin, Rice & Co., Akron, Ohio. Cooking-stove	223,420	Jan. 6	240	63	17	43
Wellington, Henry, Green Point, N. Y., assignor to Automatic Gas Lamp and Lighting Company of the City of New York. Gasoline street-lamp	234,327	Nov. 23	1258	338	18	1218
Wells, Charles B., Ronkonkoma, N. Y. Pumping-engine	231,128	Aug. 10	610	173	18	353
Wells, Edward, Boston, Mass. Anti-chafing device	235,599	Dec. 14	607	188	18	1400
Wells, George A. (See Alexander and Wells.)						
Wells, George A., Oskaloosa, Iowa. Flour-sifter	231,382	Aug. 17	906	255	18	407
Wells, George M., Boston, Mass. Last	232,263	Jan. 6	68	17	17	14
Wells, George M., Boston, Mass. Shoemaker's jack	223,264	Jan. 6	69	18	17	14

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Wells, George W., Southbridge, Mass., assignor to American Optical Company. Nose-guard for eyeglasses.....	228,146	May 25	1235	351	17	1210
Wells, Harvey L., Evansville, Ind. Sad-iron heater.....	227,081	Apr. 27	1127	309	17	963
Wells, Henry M., assignor of one-half interest to T. R. Fuller, Toronto, Ontario, Canada. Stove-pipe-joint fastener.....	229,506	June 29	1621	447	17	1500
Wells, Henry P., <i>et al.</i> (See Onderdonk, Lansing, assignor.)						
Wells & Hope Company. (See Goodes, Ebenezer A., assignor.)						
Wells, James H. (See Blaisdell, Arlond H., assignor.)						
Wells, John B., <i>et al.</i> (See Matz, Joseph, assignor.)						
Wells, John B., <i>et al.</i> (See Truoblood, Jeremiah W., assignor.)						
Wells, Richard, Baltimore, Md. Apparatus for steaming oysters.....	235,189	Dec. 7	151	43	18	1307
Wells, Seth, Parsons, Kans. Ironing-table.....	226,214	Apr. 6	78	20	17	759
Welsh & Lea. (See Hartin, Philip, assignor.)						
Welsh, Napoleon B., Baltimore, Md. Child's carriage.....	226,138	Mar. 30	1384	390	17	732
Welton, William W., Vincennes, Ind. Lifting-jack and stump-puller.....	227,335	May 4	278	81	17	1023
Welz, Friedrich W., New York, N. Y. Ventilator for hats and caps.....	233,384	Oct. 19	745	203	18	876
Wemple, Andrew, assignor to A. F. Hatch, Chicago, Ill. Machine for notching feathers.....	224,564	Feb. 17	683	195	17	346
Wemple, Frank P. (See Lake and Weller, assignors.)						
Wenchel, Laurence, Baltimore, Md. Apparatus for turning cutters for molding-machines.....	234,635	Nov. 16	1010	{ 269 } { 270 }	{ 18 }	1172
Wendel, Philip H., Pendleton Centre, N. Y. Car-coupling.....	226,009	Mar. 30	1239	350	17	709
Wendell, Isaac P., Philadelphia, Pa. Car-axle box.....	224,751	Feb. 17	892	255	17	381
Wendell, Isaac P., Philadelphia, Pa. Atmospheric car-brake.....	233,957	Nov. 2	161	41	18	1012
Wenderoth, Ernst. (See Henningsen, Jens M., assignor.)						
Wendriner, Hugo, <i>et al.</i> (See Ell, Frederic, assignor.)						
Wenger, Clayton S., West Earl P. O., Pa. Mill for crushing and grinding grain, &c.....	232,863	Oct. 5	79	23	18	752
Wenker, Franklin J., Clyman, Wis. Vehicle-brake.....	223,827	Jan. 27	762	204	17	161
Wenker, Franklin J., Clyman, Wis. Locomotive signaling attachment.....	227,936	May 25	995	{ 285 } { 286 }	{ 17 }	1171
Wenker, Franklin J., Clyman, Wis. Railway-signaling apparatus.....	234,636	Nov. 16	1013	{ 270 } { 271 }	{ 18 }	1172
Wenström, Georg, Stockholm, Sweden. Match-box.....	229,780	July 6	310	86	18	54
Wentworth, David, Gardiner, Me. Carriage-axle.....	233,307	Oct. 12	628	174	18	850
Wentworth, Jacob S., Lynn, Mass. Machine for ascertaining the area of hides.....	228,791	June 15	789	216	17	1367
Wentworth, William, and J. J. Colby, Hartland, N. Y. Washing-machine.....	225,311	Mar. 9	398	116	17	536
Wentz, Rufus J. (See Wentz, Simon P. and R. J.)						
Wentz, Simon P. and R. J., Coburn's Store, N. C., assignors to T. A. Crowell, Boston, Mass., and M. E. Crowell, Charlotte, N. C. Seed-planter.....	223,970	Jan. 27	934	249	17	189
Wenzel, George C., Newburg, N. Y. Package-box.....	225,189	Mar. 2	232	65	17	496
Wenzel, George C., Newburg, N. Y. Paper lock-box.....	228,008	May 25	1032	310	17	1185
Wenzel, Hermann J., San Francisco, Cal. Apparatus for transmitting chronometric motion.....	228,577	June 8	503	135	17	1315
Werle, Luis. (See Leonhart and Werle.)						
Werner, John, Mannheim, Baden. Apparatus for boiling varnish, lacquer, &c.....	225,032	Mar. 2	64	18	17	467
Werner, John A., Mediapolis, assignor of one-half interest to C. L. Brown, Pella, Iowa. Attachment to corn-planters.....	225,899	Mar. 23	1082	309	17	671
Wernert, John M. J., Paw Paw, Mich. Stool or chair.....	232,790	Sept. 28	1102	302	18	729
Wernicke, August, New York, N. Y. Combined writing-desk and work-box.....	224,257	Feb. 3	319	92	17	256
Werotte, Rudolf S., West Brompton, Great Britain. Governor.....	226,257	Apr. 6	125	35	17	768
Wesel, Ferdinand. (See Schley, Frederick, assignor.)						
Wesel, Ferdinand, New York, N. Y. Stereotype-plate holder.....	229,291	June 29	1363	374	17	1465
Wesner, Edward, Princeville, Ill. Combined washing and wringing machine.....	230,683	Aug. 3	104	30	18	263
Wesson, Daniel B. (See Bullard, James H., assignor.)						
Wesson, Daniel B., Springfield, Mass. Revolving fire-arm.....	228,009	May 25	1093	310	17	1186
West, Benjamin J., New Orleans, La. Cultivator.....	226,691	Apr. 20	653	181	17	876
West, Charles. (See Walters and Voorhis, assignors.)						
West, Charles F., Philadelphia, Pa. Alarm-gong.....	225,447	Mar. 9	544	156	17	560
West, Charles N., San Francisco, Cal. Galvanic belt.....	234,379	Nov. 9	667	182	18	1106
West, Clark S., Worcester, Mass. Lamp.....	231,695	Aug. 31	1270	357	18	479
West, John, Fithian, Ill. Piston-head.....	224,258	Feb. 3	320	92	17	256
West, John, Westport, Oreg., and R. D. Hume, San Francisco, Cal. Can-fillor.....	233,449	Oct. 19	824	227	18	889
West, William. (See McAuley and West.)						
West, William, Madisonville, Ohio. Apparatus for carbureting air or gases for illuminating purposes.....	231,635	Aug. 24	1189	333	18	459
Westbrook, James T., Basco, Ill. Weather-strip.....	225,033	Mar. 2	65	19	17	467
Westcott, John H., Oneida, N. Y. Chuck.....	228,426	June 1	292	83	17	1274
Westerbeck, Frederick, St. Louis, Mo. Apparatus for soldering cans.....	225,543	Mar. 16	668	195	17	591
Westerfield, William C., assignor of one-half interest to F. F. Elmendorf, Chicago, Ill. Pipe-wrench.....	228,707	June 8	644	174	17	1336
Westernmayer, Eduard, Berlin, Prussia, Germany. Piano-action.....	229,066	June 22	1113	302	17	1421
Western Electric Manufacturing Company. (See Patterson, William R., assignor.)						
Western Electric Manufacturing Company. (See Scribner, Charles E., assignor.)						
Western Union Telegraph Company. (See D'Infreville, Georges, assignor.)						
Western Union Telegraph Company. (See Edison, Thomas A., assignor.)						
Westfall, Theodore M., Keensburg, Ill. Washing-machine.....	224,230	Feb. 3	321	93	17	256
Westgate, Joseph D., Salem, assignor of two-thirds interest to G. Jenkins and E. Q. Bachelor, Lynn, Mass. Clutch.....	229,652	July 6	160	44	18	32
Westgate, Thomas, Cleveland, Ohio. Biuding attachments for sewing-machines.....	230,594	July 27	1308	369	18	237
Westinghouse Air Brake Company. (See Westinghouse, George, Jr., assignor.) (Reissue.)						
Westinghouse, George, Jr. (See Welch, Charles G., assignor.)						
Westinghouse, George, Jr., Pittsburg, Pa. Telephonic switch and connection.....	224,565	Feb. 17	684	{ 195 } { 196 }	{ 17 }	346
Westinghouse, George, Jr., Pittsburg, Pa. Fluid-pressure regulator.....	225,898	Mar. 23	1079	{ 308 } { 309 }	{ 17 }	671
Westinghouse, George, Jr., Pittsburg, Pa. Carbureter.....	229,346	June 29	1439	396	17	1475
Westinghouse, George, Jr., Pittsburg, Pa. Fluid-pressure brake.....	235,922	Dec. 28	1077	299	18	1484
Westinghouse, George, Jr., assignor to Westinghouse Air Brake Company, Pittsburg, Pa. Steam-power car-brake apparatus. (Reissue.)	9,478	Nov. 23	1281	343	18	1222
Westlake, Reuben M., Long Island City, assignor of one-half interest to J. C. Kelley, New York, N. Y. Automatic device for advertising.....	231,204	Aug. 17	717	201	18	376
Westlake, William, Brooklyn, N. Y. Locomotive head-light. (Reissue.)	9,186	May 4	290	84, 85	17	1026
Westlake, William, Brooklyn, N. Y. Stove-platform.....	232,427	Sept. 21	675	186	18	650
Weston Dynamo-Electric Machine Company. (See Weston, Edward, assignor.)						
Weston, Edward, Newark, N. J. Electric lamp.....	225,312	Mar. 9	399	116	17	536

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Name, residence, and invention.	No.	Date.	Monthly volume.		Official Gazette.	
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Weston, Edward, assignor to Weston Dynamo-Electric Machine Company, Newark, N. J. Dynamo-electric machine.....	233,823	Oct. 26	1271	356	18	974
Weston, Edward, assignor to Weston Dynamo-Electric Machine Company, Newark, N. J. Rotating armature for dynamo-electric machines.....	234,443	Nov. 16	770	207	18	1131
Weston, James H., Cincinnati, Ohio. Lighting-rod coupling.....	231,203	Aug. 17	716	201	18	376
Wetherill & Co., Robert. (See Leiper, Thomas I., assignor.)						
Wetmore, Albert S., assignor of one-half interest to L. G. Hanna, Cleveland, Ohio. Advertising device.....	233,958	Nov. 2	163	42	18	1013
Wetmore, George M., et al. (See Dreher, Hiram J., assignor.)						
Wetmore, William W. (See Sweeney and Wetmore.)						
Wetmore, William W., assignor to Winchester Repeating Arms Company, New Haven, Conn. Lock for fire-arms.....	223,662	Jan. 20	558	150	17	118
Wetmore, William W., and T. G. Bennett, assignors to Winchester Repeating Arms Company, New Haven, Conn. Magazine fire-arm.....	224,366	Feb. 10	457	131	17	298
Wexel, Henry, Attleborough, Mass. Button.....	225,959	Mar. 30	1180	335	17	700
Wexel, Henry, Attleborough, Mass. Device for making chains.....	234,444	Nov. 16	771	207	18	1131
Weymouth, Charles O. (See Gregerson and Weymouth.)						
Whann, William. (See Pratt, Julius A., assignor.)						
Wharrie, Joshua. (See Dohson, Robert F., assignor.)						
Wharton, John C., Nashville, Tenn. Show-case.....	233,308	Oct. 12	630	174	18	850
Wharton, Joseph, Philadelphia, Pa. Electroplating with nickel.....	223,265	Jan. 6	70		17	14
Whatley, Martin W., Idaho, Ala. Seed-planter and fertilizer-distributor.....	223,421	Jan. 6	241	64	17	44
Wheatley, Thomas J., Cincinnati, Ohio. Painting pottery.....	232,791	Sept. 28	1102		18	729
Wheeler, Albert T., Springfield, N. Y. Combined ventilator and chimney.....	226,215	Apr. 6	79	20	17	760
Wheeler, Alfred J., Pittsburg, Pa. Undershirt.....	225,249	Mar. 9	315	90	17	523
Wheeler & Co., Frank. (See Everett, Percival, assignor.)						
Wheeler, Cyrus W., Brownville, Nebr. Triangular-truss bridge.....	231,383	Aug. 17	907	255	18	407
Wheeler, Edward E., South Bend, Ind. Bridle-bit.....	233,309	Oct. 12	631	174	18	851
Wheeler, Elonzo S., assignor of one-half interest to J. E. Wheeler, Westport, Conn. Button.....	233,587	Oct. 19	979	271	18	915
Wheeler, Elonzo S., assignor of one-half interest to J. E. Wheeler, Westport, Conn. Casket-trimmings.....	234,155	Nov. 9	403	109	18	1060
Wheeler, Henry F., Boston, assignor to J. P. Lovell, Weymouth, Mass. Breech-loading fire-arm.....	233,901	Nov. 2	84	22	18	1001
Wheeler, Henry F., Boston, Mass., assignor to J. M. Marlin, New Haven, Conn. Magazine fire-arm. (Réissue).....	9,461	Nov. 9	690	186	18	1110
Wheeler, Henry N., et al. (See Betts, Lewis F., assignor.)						
Wheeler, John M., Toledo, Ohio. Cuspadore.....	225,774	Mar. 23	948	273	17	648
Wheeler, John M., Toledo, Ohio. Annunciator-drop.....	228,578	June 8	505	135	17	1315
Wheeler, Jonathan E. (See Wheeler, Elonzo S., assignor.)						
Wheeler, Marshall G., and W. A. Chapman, Winsted, Conn. Plating metals.....	234,736	Nov. 23	1144	308	18	1199
Wheeler, Norman W., Brooklyn, N. Y. Pumping-engine.....	223,663	Jan. 20	560	150 151	17	118
Wheeler, Phillip H., Springfield, Ill. Micrometer watch-regulator.....	229,215	June 22	1268	349	17	1444
Wheeler, Shepherd H., Peru, Ind. Latch.....	229,347	June 29	1440	397	17	1475
Wheeler, William A. (See Burleigh and Wheeler.)						
Wheeler, William A. (See Lockwood, Henry S., assignor.)						
Wheeler, William A., Indianapolis, Ind. Machine for forming circumferential crimps in sheet-metal pipes.....	224,974	Feb. 24	1169	334 335	17	441
Wheeler, William F., Philadelphia, Pa. Compound for disinfection.....	224,367	Feb. 10	459		17	298
Wheeler, William H. (See Fox, Cyrus D., assignor.)						
Wheeler, William H., assignor to Eclipse Windmill Company, Beloit, Wis. Windmill. (Réissue).....	9,493	Dec. 7	326	90	18	1336
Wheeler & Wilson Manufacturing Company. (See Curtis, George H. W., assignor.)						
Wheeler & Wilson Manufacturing Company. (See Marsh, Clark and D. E., assignors.)						
Wheeler & Wilson Manufacturing Company. (See Steward, Aurelius, assignor.)						
Wheelock & Co., C. B. (See Frank, Samuel B., assignor.)						
Wheelock, Jerome, Worcester, Mass. Lubricating apparatus for steam-engine cylinders.....	232,865	Oct. 5	81	23	18	752
Wheelwright, Sherburn, assignor of one-half interest to C. J. James and S. V. Harron, New York, N. Y. Pantalon-hanger.....	230,513	July 27	1216	343	18	221
Whelan, Charles A. (See Watkinson and Whelan.)						
Wherritt, Thomas, Cynthia, Ky. Fire-escape.....	234,828	Nov. 23	1260	339	18	1218
Whidden, Hosea F., South Abington, Mass. Making shoe-nails.....	229,292	June 29	1364	374	17	1465
Whidden, Hosea F., South Abington, Mass. Fastening for boots and shoes.....	234,698	Nov. 23	1101	206	18	1192
Whipple, Charles S., New London, Conn., assignor to Goddard Manufacturing Company, Sash-lock.....	229,022	June 22	1066	290	17	1414
Whipple, Clarence F. and E. E., Racine, Wis.; said E. E. Whipple assignor to said Clarence F. Whipple. End-board fastening.....	225,544	Mar. 16	670	196	17	592
Whipple, Effinger E. (See Whipple, Clarence F. and E. E.)						
Whipple, Frank B., Erie, Pa. Sleeping-car.....	234,899	Nov. 30	1352	363 364	18	1240
Whipple, George W., assignor of one-half interest to M. H. Bentley, Ludlow, Ky. Railway-switch bar.....	225,034	Mar. 2	66	19	17	467
Whipple, Lyman W., Boston, Mass., assignor, by mesne assignments, to United States Horse Nail Company, Hartford, Conn. Horseshoe-nail machine.....	228,792	June 15	790	216 217	17	1367
Whipple, Rufus H., Otisville, Iowa. Attachment for corn-plinters.....	235,662	Dec. 21	744	212	18	1420
Whitaker, Joseph R. (See Lawrence, Wykoff, and Whitaker.)						
Whitall, James, et al. (See Smith, Robert P., assignor.)						
Whitcomb, George D., Chicago, Ill., assignor of three-fourths interest to S. and J. J. Harrison, and O. Butler, Wayne, Mich. Mining-machine.....	232,792	Sept. 28	1103	302	18	729
Whitcomb, John B., Beloit, Wis. Vehicle-spring.....	225,087	Mar. 2	130	37	17	479
Whitcomb, Sybell H., Worcester, Mass. Garment-supporter.....	234,932	Nov. 30	1389	373	18	1246
Whitcomb, William W. (See Daggett, John C., assignor.)						
White, Archibald W. (See Redmond and White.)						
White, Arthur W., Buffalo, N. Y. Rock-drill.....	225,190	Mar. 2	233	65, 66	17	496
White, Charles B., assignor of one-half interest to W. Deacon, San Francisco, Cal. Tube for surface-condensers.....	227,142	May 4	68	19	17	989
White, Charles H., Boston, Mass. Railway-crossing.....	236,130	Dec. 28	1331	365	18	1525
White, D. A., et al. (See Phillips, Joseph A., assignor.)						
White, Delos M. (See Hitchcock, Jonathan, assignor.)						
White, George, New York, N. Y. Tuck-marker for sewing-machines.....	229,024	June 22	1067	291	17	1415
White, George, Greenville, Pa. Spring-vehicle.....	232,794	Sept. 28	1105	303	18	729
White, George C., and H. Van Zulen, Washington, D. C. Temporary binder.....	225,901	Mar. 23	1083	309	17	672
White, George F., Middletown, N. Y. Cheese-press.....	228,291	June 1	160	44	17	1252
White, George S., and G. W. Calef, Eddington, Me. Mower.....	226,216	Apr. 6	80	21	17	760



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White, Henry C., Madison, Ind. Cooking-vessel.....	233,054	Oct. 5	310	86	18	789
White, Henry S., <i>et al.</i> (See North, John, assignor.)						
White, Hiram J., Boston, Mass., assignor to Holmes, Booth & Haydens, Waterbury, Conn. Lamp-burner. (Reissue).....	9,498	Dec. 7	333	92	18	1338
White, Hiram W., Yankton, Dak. Ter. Churn-dasher.....	229,784	July 6	316	88	18	54
White, Hugh, Chicago, Ill. Shoe-makers' measuring-tablet.....	223,569	Jan. 13	446	120	17	90
White, Hugh, Chicago, Ill. Shoe-tip.....	228,500	June 8	409	112	17	1301
White, James, <i>et al.</i> (See Herrenschmidt, Henri, assignor.)						
White, James C., <i>et al.</i> , trustees. (See Grout, Charles P., assignor.) (Reissue.)						
White, James C., <i>et al.</i> , trustees. (See Starr, Eli T., assignor.)						
White, James H. (See Joubert and White.)						
White, James H., assignor to Manhattan Brass Company, New York, N. Y. Adjustable bracket and standard lamp.....	235,477	Dec. 14	520	150	18	1376
White, James W., <i>et al.</i> , trustees. (See Bonwill, William G. A., assignor.) (Reissue.)						
White, James W., <i>et al.</i> , trustees. (See Gilbert, John W., assignor.) (Reissue.)						
White, James W., <i>et al.</i> , trustees. (See Grout, Charles P., assignor.) (Reissue.)						
White, James W., <i>et al.</i> , trustees. (See Reid, Hiram A., assignor.) (Reissue.)						
White, James W., <i>et al.</i> , trustees. (See Starr, Eli T., assignor.)						
White, James W., assignor of one-half interest to L. Thayer, Rothbury, Mich. Feed-water heater and filter.....	226,814	Apr. 20	781	217	17	898
White, J. Clarence, <i>et al.</i> , trustees. (See Bonwill, William G. A., assignor.) (Reissue.)						
White, J. Clarence, <i>et al.</i> , trustees. (See Gilbert, John W., assignor.) (Reissue.)						
White, J. Clarence, <i>et al.</i> , trustees. (See Reid, Hiram A., assignor.) (Reissue.)						
White, J. Clarence, <i>et al.</i> , trustees. (See Starr, Eli T., assignor.)						
White, Jesse V. (See Taylor, White, and Morris.)						
White, John, <i>et al.</i> (See Patterson and Hale, assignors.)						
White, John E., Syracuse, N. Y. Clothes-drier.....	233,176	Oct. 12	470	129	18	822
White, John R. (See Bennett, Edward C., assignor.)						
White, Joseph, assignor to W. S. Tyler, Cleveland Ohio. Bale-tie.....	230,093	July 13	666	186	18	117
White, Joseph, Cleveland, Ohio. Bale-tie.....	235,973	Dec. 28	1141	316	18	1494
White, Joseph C., New York, N. Y. Store-service apparatus.....	229,783	July 6	314	88	18	54
White, Joseph F., assignor to E. P. Needham & Son, New York, N. Y. Key-board attachment for musical instruments.....	227,083	Apr. 27	1128	310	17	963
White, Joseph F., Brattleborough, Vt., assignor to E. P. Needham & Son, New York, N. Y. Key-board attachment for musical instruments.....	227,461	May 11	435	126	17	1060
White, Joseph J., and W. S. Kelley, Smithville, N. J. Tenoning-machine.....	224,752	Feb. 17	893	255	17	382
White, Leonard. (See Hewitt, Samuel A., assignor.)						
White, Le Roy S., assignor to Brown & Brothers, Waterbury, Conn. Machine for forming tubes.....	225,035	Mar. 2	67	19	17	468
White, Le Roy S., assignor to Brown & Brothers, Waterbury, Conn. Mold for casting hollow ingots.....	235,476	Dec. 14	519	150	18	1376
White, Le Roy S., assignor to Brown & Brothers, Waterbury, Conn. Manufacture of boilers and other vessels.....	235,834	Dec. 21	946	264	18	1455
White, Le Roy S., Waterbury, Conn. Electric signal for telephone-lines.....	236,131	Dec. 28	1332	366	18	1525
White, Lewis B., and L. Henderson, Middlebury, N. C. Smoke and dust arrester for railway-cars.....	225,448	Mar. 9	545	157	17	560
White, Luther C., <i>et al.</i> (See North, John, assignor.)						
White, Melvin L. (See Merritt, Benjamin, assignor.)						
White, Nathan D., assignor to Taplin, Rice & Co., Akron, Ohio. Receptacle for pot-hole lids.....	223,422	Jan. 6	242	64	17	44
White, Peter, St. Louis, Mo. Valve.....	227,193	May 4	122	36	17	997
White, Ripley J. (See Noyes and White.)						
White, Samuel, assignor to Phenix Manufacturing Company, Eau Claire, Wis. Head-block for saw-mills.....	235,833	Dec. 21	944	264	18	1455
White, Samuel S. (See Brown, Robert G., assignor.)						
White, Samuel S. (See Carrick, Thomas J., assignor.)						
White, Samuel S. (See Starr, Eli T., assignor.)						
White Sewing Machine Company. (See Baker, George W., assignor.)						
White, Timothy, Landport, Portsmouth, county of Hants, England. Axle-lubricator.....	235,717	Dec. 21	813	228	18	1431
White, Truman C., Fresno, Cal. Grape-picker.....	224,975	Feb. 24	1170	335	17	441
White, William R., Neoga, Ill. Fence.....	224,621	Feb. 17	759	215	17	358
White, William W., assignor to Rogers & Brothers, Waterbury, Conn. Feed-motion for burnishing-machines.....	231,576	Aug. 31	1495	419	18	513
White, William W., assignor to Rogers & Brother, Waterbury, Conn. Die for compressing fork-blanks.....	232,320	Sept. 14	530	147	18	621
Whitehead & Atherton Machine Company. (See Estes, George, assignor.) (Reissue.)						
Whitehead & Atherton Machine Company. (See Hillard, James P., assignor.)						
Whitehead, Henry M., New York, N. Y. Whiffletree.....	225,250	Mar. 9	315	90	17	524
Whitehead, Jessup, Leadville, Colo. Potato-slicer.....	228,708	June 8	645	175	17	1336
Whitehead, William W., Brooklyn, N. Y. Frame for bed-canopies.....	223,687	Jan. 20	587	158	17	122
Whitehill, Robert, New York, N. Y. Motor for sewing-machines.....	225,191	Mar. 2	235	66	17	496
Whitehill, Robert, New York, N. Y. Lubricator.....	231,636	Aug. 24	1191	333	18	459
Whitehouse, Arthur T., Somerville, Mass. Machine for forming seamless metal tubes.....	227,462	May 11	437	126	17	1060
Whitehurst, Robert W., Norfolk, Va. Plow.....	224,753	Feb. 17	894	256	17	382
Whitelaw, James, assignor of one-half to St. Louis Type Foundry, St. Louis, Mo. Card cutting or stripping machine.....	234,829	Nov. 23	1262	339	18	1219
Whitelaw, James, assignor of one-half to St. Louis Type Foundry, St. Louis, Mo. Melting-pot for type-casting machines.....	235,188	Dec. 7	150	43	18	1307
Whiteley, Fassler & Kelly. (See Bayley, William, assignor.)						
Whiteley, William N., Springfield, Ohio. Gleaner and binder.....	231,248	Aug. 17	767	{ 214 215 }	18	384
Whiteman, Israel R., assignor to E. A. Beers, Chicago, Ill. Tension apparatus for wire-barbing machines.....	226,946	Apr. 27	959	266	17	937
Whiteman, Louis P., New York, N. Y. Jar for milk, &c.....	225,900	Mar. 23	1082	309	17	671
Whitenack, Abraham, Edinburg, Ill. Purse or wallet protector.....	225,088	Mar. 2	132	38	17	479
Whiteside, Glenn M., <i>et al.</i> (See Bold, Fred, assignor.)						
Whitfield, John, Toronto, Ontario, Canada. Stump-extractor.....	233,866	Oct. 5	84	23	18	752
Whitin Machine Works. (See Taft, Gustavus E., assignor.)						
Whiting, A. H. (See Wilcox, Spencer G., assignor.)						
Whiting, A. H. (See Wilcox, Spencer G., assignor.) (Reissue.)						
Whiting, George A., Neenah, Wis. Washer for paper-pulp, &c.....	232,383	Sept. 21	621	171	18	641
Whiting, George B., Washington, D. C. Drawer for safe-keeping of drawings.....	223,423	Jan. 6	242	64	17	44
Whiting, George F., Boston, Mass., assignor to Celluloid Manufacturing Company, New York, N. Y. Manufacture of celluloid boxes.....	232,095	Sept. 7	260	71	18	566

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Whiting, Rachel L. (See Whiting, William M., assignor.)						
Whiting, William M., assignor to R. L. Whiting, Elizabeth, N. J. Method of and means for clasp- ing belts	232,428	Sept. 21	676	186	18	650
Whitley, John H., Elmira, N. Y. Photo-mechanical printing	228,579	June 8	506	136	17	1315
Whitley, John H., Elmira, N. Y. Photo-mechanical printing-plate	229,930	July 13	492	136	18	90
Whitman Agricultural Company. (See Whitman, Charles E., assignor.)						
Whitman & Burrell. (See Burrell and Naylor, assignors.)						
Whitman & Burrell. (See Fraser, Milton B., assignor.) (Reissue.)						
Whitman & Burrell, et al. (See Naylor, James, Jr., assignor.)						
Whitman, Charles E., assignor to Whitman Agricultural Company, St. Louis, Mo. Corn- sheller	233,053	Oct. 5	310	86	18	789
Whitman, Charles R., Ypsilanti, Mich. Nut-lock	228,964	June 15	981	267	17	1394
Whitman, William L., Ringgold, Ga., and J. D. Igon, James County, Tenn. Wagon-brake	234,637	Nov. 16	1015	271	18	1172
Whitmore, Enos B., Rochester, N. Y. Lifting-bridge	225,775	Mar. 23	948	{ 273 274 }	{ 17 17 }	{ 648 648 }
Whitmore, George B., New Haven, Conn. Velocipede	226,578	Apr. 13	499	140	17	840
Whitmore, Joseph M., assignor of one-half interest to R. E. Miller, Hobart, Ind. Oil-stove	226,010	Mar. 30	1239	350	17	709
Whitmore, Osceola A. (See Mansfield, Eben B., assignor.)						
Whitmore, William E. (See Innis and Whitmore.)						
Whitney, Charles A., et al. (See Owen, Richard W., assignor.)						
Whitney, Charles S., Canaseraga, N. Y. Rotary steam-engine	232,793	Sept. 28	1104	302	18	729
Whitney, Frank E., Boston, and C. W. Killam, Chelsea, Mass. Ice-cream freezer	227,665	May 18	667	190	17	1108
Whitney, George B., Attleborough, Mass. Ornamental chain	223,971	Jan. 27	935	250	17	189
Whitney, George B., Attleborough, Mass. Jewelry-charm	224,260	Feb. 3	322	93	17	257
Whitney, George H. G. (See Foote, Theodore M., assignor.)						
Whitney, Henry M., Oswego, N. Y. Shovel	223,619	Jan. 13	501	135	17	99
Whitney, James A., New York, N. Y. Machine for making pills	224,566	Feb. 17	690	{ 196 197 }	{ 17 17 }	{ 347 347 }
Whitney, James A., New York, N. Y. Process of and apparatus for coating pills	229,785	July 6	316	88	18	54
Whitney, Jonah D., Syracuse, N. Y. Vehicle-spring	223,460	Jan. 13	312	83	17	68
Whitney, Luke H., Cambridge, Mass. Spring bed-bottom	229,023	June 22	1066	291	17	1415
Whitney, Thomas J., Philadelphia, Pa. Oil-stove	232,160	Sept. 14	339	95	18	588
Whiton, David E., West Stafford, Conn. Scroll-chuck	224,119	Feb. 3	173	49	17	232
Whittaker, William. (See Smith, Charles, assignor.)						
Whittemore, Albert O. (See Hall, Gordon W., assignor.)						
Whittemore, David H., Worcester, Mass. Apple parer and slicer	226,217	Apr. 6	81	21	17	760
Whittemore, Joshua, Wakefield, Mass. Celluloid crutch-top	233,824	Oct. 26	1274	357	18	975
Whittemore, Robert D., Chippewa Falls, Wis. Harness-buckle	235,052	Nov. 30	1536	413	18	1271
Whitten, Alonzo H., et al. (See Hudson and Burrill, assignors.)						
Whittenhall, Daniel S., Denver, Colo. Railway cross-tie and rail-fastening	227,602	May 11	594	170	17	1087
Whittier, Abel C., Boston, Mass. Steam-vacuum dredge	235,478	Dec. 14	521	{ 150 151 }	{ 18 18 }	{ 1376 1376 }
Whittier, Alcibiades J., Chelsea, and R. S. Whittier, Hyde Park, Mass. Elevator	227,866	May 18	893	{ 254 255 }	{ 17 17 }	{ 1144 1144 }
Whittier, Charles. (See Bean, James M., assignor.)						
Whittier, Charles, Boston, Mass. Steam-vacuum dredge	235,601	Dec. 14	668	189	18	1401
Whittier, Joseph G., Attica, Ind. Counter-brace for boots and shoes	225,201	Mar. 2	248	70	17	500
Whittier, Reuben S. (See Whittier, Alcibiades J. and R. S.)						
Whittier, William P., Jr., Biddeford, Me. Sole and heel plate for boots and shoes	226,894	Apr. 27	898	249	17	928
Whittingham, Charles and J., Cleveland, Ohio. Vapor-burner	235,600	Dec. 14	667	189	18	1400
Whittingham, Joseph. (See Whittingham, Charles and J.)						
Whittlesey, Charles E., assignor of one-half interest to J. L. Joyce, New Haven, Conn. De- vice for repairing heel-linings of boots and shoes	228,709	June 8	646	175	17	1336
Wiard, George, assignor to Wiard Plow Company, Batavia, N. Y. Mold for casting chilled mold-boards	231,877	Aug. 31	1497	419	18	513
Wiard, Harry. (See Judd, James L., assignor.)						
Wiard, Harry, Syracuse, N. Y. Plow. (Reissue.)	9,189	May 4	294	86	17	1027
Wiard, Harry, Syracuse, N. Y. Plow. (Reissue.)	9,190	May 4	295	86	17	1027
Wiard, Harry, Syracuse, N. Y. Plow-beam	229,216	June 22	1269	349	17	1444
Wiard, Harry, and W. R. Bullock, Syracuse, N. Y. Plow	229,217	June 22	1270	349	17	1444
Wiard Plow Company. (See Wiard, George, assignor.)						
Wicke, Wilhelm, Stuyvesant, N. Y. Grate for stoves	226,695	Apr. 27	898	250	17	923
Wickenhauser, Edward B., et al. (See Draper, Henry V. P., assignor.)						
Wickers, Barny. (See Wickers, William, L., and B.)						
Wickers, Louis. (See Wickers, William, L., and B.)						
Wickers, William, L., and B., Lebanon, Ind. Tile-kitt	229,848	July 13	405	111	18	76
Wickersham, Edward W., Minneapolis, Minn. Cuff-holder	234,100	Nov. 2	327	90	18	1041
Wickersham, John B., Philadelphia, Pa. Metal railing	230,977	Aug. 10	445	128	18	326
Wickes, Charles R., assignor to J. H. Woodruff, Auburn, N. Y. Die for forming buttons	226,140	Mar. 30	1386	391	17	732
Wickes, Charles R., assignor to Woodruff Brothers, Auburn, N. Y. Manufacture of but- tons from plastic material	232,582	Sept. 21	840	{ 233 234 }	{ 18 18 }	{ 679 679 }
Wickes, Hiram N., Grand Gorge, assignor to Z. W. More, Camden, N. Y. Car-coupling	224,754	Feb. 17	895	256	17	382
Wickes, James H., New York, N. Y. Grain-car door	224,314	Feb. 10	396	112	17	288
Wickes, James H., New York, N. Y. Freight-car door	227,338	May 4	281	82	17	1024
Wickes, James H., New York, N. Y. Refrigerator	230,376	July 20	1019	288	18	182
Wickes, William B., Sharon, Mass. Clothes-pounder	228,846	June 15	857	234	17	1376
Wickey, Andrew, and J. W. Brown, Quincy, Ill. Corn-planter	234,447	Nov. 16	774	208	18	1132
Wickham, Horace, Jr. (See Garretson and Draper, assignors.) (Reissue.)						
Wickham, Horace J., Hartford, Conn. Newspaper-wrapper machine	233,450	Oct. 19	826	{ 227 228 229 }	{ 18 18 18 }	{ 889 889 889 }
Wickham, William J., Forest Home, Tex. Saw-mill dog	234,099	Nov. 2	326	90	18	1040
Wickliffe, George M., Brook Neal, Va. Ventilating attachment for funnels	235,718	Dec. 21	813	228	18	1432
Wicklin, Elijah S., Black River Falls, Wis. Clothes-pounder	228,010	May 25	1093	311	17	1186
Wicks, William A., Baltimore, Md. Making sheet-metal cans	230,726	Aug. 3	148	44	18	271
Wickers, William A., et al. (See Humphrey, Henry C., assignor.)						
Wienhold, Joseph, Stapleton, N. Y. Cigar-cutter	232,864	Oct. 5	80	23	18	752
Wier, Marshall A., Shepherd's Bush, Great Britain. Musical top or gyrophone	229,218	June 22	1270	349	17	1444
Wiesbauer, Andrew, Erie, Pa. Bass-pedal for piano-fortes	228,963	June 15	980	{ 266 267 }	{ 17 17 }	{ 1394 1394 }
Wiese, William. (See Koch and Wiese.)						
Wiesebroek, Frederick W., New York, N. Y. Gas-pressure regulator and indicator	227,867	May 18	894	255	17	1144
Wiesebroek, Frederick W., New York, N. Y. Apparatus for purifying the air in brewers' cellars	231,129	Aug. 10	611	173	18	353

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Wicsebrock, Frederick W., assignor of one-third interest to A. E. Schatz, New York, N. Y. Drier for brewers' grains.....	231,384	Aug. 17	908	255	18	407
Wieser, Martin, Armstrong, Kans. Cistern-pump.....	225,193	Mar. 2	239	66	17	497
Wiester, Rudolf, Kassowitz, Prussia, Germany. Apparatus for treating zinc.....	228,965	June 15	982	267	17	1394
Wiester, W. H. (See Chenette, Joseph E., assignor.)						
Wiester, William H., San Francisco, Cal. Cabinet kitchen-table.....	223,828	Jan. 27	763	204	17	161
Wiester, William H., San Francisco, Cal. Coal-oil cooking-stove.....	223,829	Jan. 27	764	204	17	161
Wiester, William H., San Francisco, Cal. Sugar-molding machinery.....	231,638	Aug. 24	1192	334	18	459
Wiestling, George B., Mont Alto, Pa. Dumping-wagon.....	227,337	May 4	280	82	17	1024
Wiggin, John E., Stoneham, Mass., assignor, by mesne assignments, to L. S. Cox, Philadelphia, Pa. Sewing-machine and trimming device therefor. (Reissue).....	9,056	Jan. 20	718	194	17	144
Wiggin, John E., Houston, Tex. Spark-arrester.....	224,497	Feb. 10	597	173	17	321
Wiggin, John E., Houston, Tex. Spark-arrester.....	226,378	Apr. 6	255	74	17	792
Wiggin, Joseph F. (See Sterick, Sylvester T. F., assignor.)						
Wiggins, William B., Robbinsville, N. C. Animal-trap.....	224,498	Feb. 10	598	173	17	321
Wight, George R. (See Keech, Walter, assignor.)						
Wightman, John B., Brooklyn, N. Y. Child's carriage.....	224,976	Feb. 24	1171	335	17	441
Wightman, John E., assignor to North & Judd Manufacturing Company, New Britain, Conn. Snap-hook.....	224,622	Feb. 17	760	215	17	358
Wightman, John E., assignor to North & Judd Manufacturing Company, New Britain, Conn. Snap-hook.....	224,856	Feb. 24	1047	298	17	421
Wilbur, John D., Towanda, Pa. Mower.....	225,960	Mar. 30	1180	335	17	700
Wilbur, Alfred, Allegheny, Pa. Car-wheel.....	234,699	Nov. 23	1102	296	18	1192
Wilbur, Alfred, Allegheny, Pa. Car-wheel.....	235,835	Dec. 21	947	264	18	1455
Wilbur, Andrew R., Baltimore, Md. Making spiral springs.....	234,830	Nov. 23	1263	339	18	1219
Wilcox, Albert, Clarence, Iowa. Clamp for harrow-frames.....	231,637	Aug. 24	1192	333	18	459
Wilcox, Charles H. (See Ashley, Lewis C., assignor.)						
Wilcox, Charles M., New Paris, Ohio. Feed-water apparatus.....	226,141	Mar. 30	1388	391	17	733
Wilcox, Daniel L., Pawtucket, R. I. Game-board.....	233,055	Oct. 5	312	86	18	789
Wilcox, Darius, Derby, assignor to Wilcox & Howe, Birmingham, Conn. Die for swaging blanks for fifth-wheels.....	233,128	Oct. 12	416	114	18	813
Wilcox, George, et al., trustees. (See Blacklidge, Robert, assignor.)						
Wilcox, Hiram L., Lincoln, Neb. Tanning extract.....	235,923	Dec. 28	1079	.....	18	1484
Wilcox & Howe. (See Wilcox, Darius, assignor.)						
Wilcox, John F., Allegheny, Pa., and E. M. Pearson, Wheeling, W. Va. Clay-press.....	236,132	Dec. 28	1335	366	18	1526
Wilcox, Julius H., Portsmouth, Va. Inkstand.....	224,261	Feb. 3	323	93	17	257
Wilcox, Richard E., Hartford, Conn. Drill-chuck.....	225,902	Mar. 23	1085	310	17	672
Wilcox Silver Plate Company. (See Babbitt, S. William, assignor.)						
Wilcox, Spencer G., Weedsport, N. Y., assignor, by mesne assignments, to A. H. Whiting, Harrisburg, Pa. Metal-worker's tool. (Reissue).....	9,064	Feb. 3	329	95	17	258
Wilcox, Spencer G., Weedsport, N. Y., assignor to A. H. Whiting, Harrisburg, Pa. Rod and wire cutting and twisting.....	230,377	July 20	1020	288	18	182
Wilcox, Spencer G., Weedsport, N. Y., assignor to A. H. Whiting, Harrisburg, Pa. Hand device for punching metal.....	232,583	Sept. 21	841	234	18	679
Wilcox, Stephen. (See Babcock and Wilcox.)						
Wilcox, Stephen. (See Babcock, Wilcox, and Pratt.)						
Wilcox, Stephen, et al. (See Bennett, Edwin H., assignor.)						
Wilcox, William R., Nashua, N. H. Eaves-trough support.....	235,111	Dec. 7	54	17	18	1290
Wilcox, William W., Chicago, Ill. Baggage-check.....	230,455	July 27	1157	326	18	211
Wilcoxson, Jackson. (See Anderson, Henry, assignor.)						
Wilde, Robert and T. B., Philadelphia, Pa. Device for conveying, doubling, and folding the lap of a carding-machine.....	226,379	Apr. 6	255	75	17	793
Wilde, Thomas B. (See Wilde, Robert and T. B.)						
Wilder, Aretus A., assignor of one-half interest to C. B. Palmer, Detroit, Mich. Safety-governor for elevators, &c.....	230,514	July 27	1217	343	18	221
Wilder, David H., Corry, Pa. Manufacture of patterns for casting printing-rolls for grain-ing wooden ware.....	229,508	June 29	1623	447	17	1500
Wilder, Lyman. (See Farnum, William C., assignor.)						
Wilder, Moses G., Brooklyn, N. Y. Gas-regulator.....	223,570	Jan. 13	447	120	17	91
Wilder, Moses G., Brooklyn, N. Y. Gas-regulator.....	230,846	Aug. 3	290	83	18	295
Wildermuth, La Fayette, New Lexington, Ohio. Bed-spring.....	224,315	Feb. 10	398	112	17	288
Wilds, James. (See Rae and Wilds.)						
Wile, Jonas F., New Pittsburg, Ohio. Blind-slat adjuster.....	227,937	May 25	997	286	17	1171
Wiles, Thomas S., Albany, N. Y. Machine for moistening the fold-lines of collars.....	234,156	Nov. 9	403	109	18	1060
Wiley, Charles J., New York, N. Y. Printing-telegraph.....	227,868	May 18	895	255	17	1144
Wiley, Charles J., New York, N. Y. Printing-telegraph.....	227,869	May 18	897	256	17	1145
Wiley, Clement S., Chestnut, Ill. Churn-motor.....	232,161	Sept. 14	341	95	18	588
Wiley, Edwin, Brooklyn, N. Y. Pointing pens.....	228,427	June 1	293	.....	17	1374
Wiley, H. A., et al. (See Page, John W., assignor.)						
Wiley, Henry T., et al. (See Campbell, Joseph H., assignor.)						
Wilford, John B., Philadelphia, Pa. Separator for ores.....	226,258	Apr. 6	127	36	17	768
Wilgus, Daniel C., and C. D. Johnson, assignors to themselves and S. P. Knisely, Marshalltown, Iowa. Spring-support for carriage-bows.....	225,738	Mar. 23	900	262	17	641
Wilhelm, Edward. (See Nelson, Thomas, assignor.) (Reissue.)						
Wilhelm, William H. (See Heckendorn, Henry C., assignor.)						
Wilhelmi, Diedrich, New York, N. Y. Bag or satchel.....	230,847	Aug. 3	292	83	18	295
Wilkerson, Basil M., Baltimore, Md. Dental engine.....	228,149	May 25	1239	352	17	1210
Wilkin, William M., Oscoda, Mich. Reciprocating-saw mill.....	231,249	Aug. 17	769	215	18	385
Wilkins, Alexander G., Cooperstown, Pa. Shoe-button fastener.....	235,974	Dec. 28	1142	316	18	1494
Wilkins, Asa, Cincinnati, Ohio. Drag-sawing machine.....	228,237	June 1	94	28	17	1242
Wilkins, Charles J. F., Windsor, Nova Scotia, Canada. Combined harvester and thrasher.....	225,449	Mar. 9	546	{ 157 } { 158 }	{ 17 }	{ 561 }
Wilkins, Isaac, Jr., Green Point, N. Y. Easel.....	226,139	Mar. 30	1385	390	17	732
Wilkins, Joseph, Baltimore, Md. Apparatus for saving float-gold.....	224,368	Feb. 10	459	131	17	298
Wilkins, Joseph, Baltimore, Md. Apparatus for saving float-gold.....	231,205	Aug. 17	719	202	18	376
Wilkins, Thomas F., London, England. Preservation of butter.....	226,467	Apr. 13	371	.....	17	820
Wilkinson, George. (See Wilkinson, William H. and G.)						
Wilkinson, George W. (See Robinson, Daniel T., assignor.)						
Wilkinson, John, Harvard, Ill., assignor of one-half interest to W. S. Wilkinson. Ventilating and cooling dairies. (Reissue).....	9,051	Jan. 20	708	191	17	142
Wilkinson, John M., Trezevant, Tenn. Animal-trap.....	233,452	Oct. 19	831	229	18	890
Wilkinson, John R., Newnan, Ga. Shaft-supporter for vehicles.....	232,881	Oct. 5	106	28	18	755
Wilkinson, Walter S. (See Wilkinson, John, assignor.) (Reissue.)						
Wilkinson, Walter S., Baltimore, Md. Apparatus for cooling air.....	225,192	Mar. 2	237	66	17	437

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Wilkinson, William H. and G., Birmingham, England. Colored ornamentation of electro-plated and other goods.....	228,150	May 25	1240	.....	17	1210
Wilkinson, William S., Ohio, assignor of one-half interest to D. D. Parry, Monmouth, Ill. Gate.....	230,909	Aug. 10	374	108	18	315
Wilkinson, John A. (See Wood and Wilkison.)						
Wilks, Matthew. (See Coventry and Wilks.)						
Will, Nicolaus, Brooklyn, N. Y. Steam-generator.....	233,310	Oct. 12	632	{ 174 } 175	18	851
Willins, Thomas, Philadelphia, Pa. Fountain attachment for writing-pens.....	223,788	Jan. 20	695	187	17	140
Willard, Alfred H. (See Knight, George H., assignor.)						
Willard, George A., Worcester, Mass. Truss.....	227,708	May 18	719	203	17	1116
Willard, Horatio. (See Brooks and Willard.)						
Willard, Hosea, assignor to himself and F. W. Coe, Vergennes, Vt. Scale-beam.....	223,787	Jan. 20	694	187	17	140
Willard, Joel G., New York, N. Y. Globe and other valves.....	233,902	Nov. 2	86	22	18	1001
Willcox, Charles H., New York, N. Y. Machine for sewing covered wire to hats.....	230,212	July 20	827	234	18	152
Willcox, Treadway & Co. (See Ohmer, John F., assignor.)						
Willcoxson, Coulmon W., assignor of one-half interest to S. R. Hamilton, Farmersville, Tex. } Cotton-planter attachment.....	228,153	May 25	1243	{ 352 } 353	17	1211
Willeby, Samuel P., Philadelphia, Pa. Hoisting storm-sails.....	226,142	Mar. 30	1388	392	17	733
Willey, George W., Athol, Mass. Lasting-jack.....	233,177	Oct. 12	470	129	18	822
Williams, Aaron W. C., et al. (See Mervesp, John J., assignor.)						
Williams, Aaron W. C. (See Talcott, Williams, and Capowell.)						
Williams, Albert W., Leominster, Mass. Braid-pin.....	223,620	Jan. 13	502	135	17	99
Williams, A. M. (See Munger, Jerome S., assignor.)						
Williams, Benjamin, and J. S. Matthews, Cardiff, county of Glamorgan, South Wales, Great Britain. Piston-packing.....	235,843	Dec. 21	960	267	18	1457
Williams, Benjamin H., New York, N. Y. Revolving fire-arm. (Reissue).....	9,261	June 15	1007	273	17	1398
Williams, Charles, Jr. (See Lane, Thomas W., assignor.)						
Williams, Charles, Jr. (See Lord, Edward N., assignor.)						
Williams, Charles K., Kansas City, Mo. Shaving-cup.....	229,067	June 22	1114	303	17	1421
Williams, Charles M., Bethel, Ky. Can-opener.....	224,977	Feb. 24	1172	336	17	441
Williams, Charles N. (See Palmer and Root, assignors.)						
Williams, David C., Florence, Ala. Fruit-picker.....	224,978	Feb. 24	1173	336	17	441
Williams, Edmund B., Little Meadows, Pa. Bridle and check-rein.....	228,152	May 25	1242	352	17	1211
Williams, Edward H., et al. (See Longstreth, Edward, assignor.) (Reissue.)						
Williams, Edwin, Steamburg, N. Y. Combined churn and butter-worker.....	223,786	Jan. 20	693	187	17	140
Williams, Ella S., Mount Morris, N. Y. Dress-protector.....	223,621	Jan. 13	502	136	17	99
Williams, Francis A., New York, N. Y. Device for securing railway-rails.....	235,320	Dec. 7	302	85	18	1331
Williams, Francis A., New York, N. Y. Metallic railway-tie.....	235,321	Dec. 7	303	86	18	1332
Williams, Francis A., assignor of one-half interest to A. A. Drake, New York, N. Y. Column for elevated railways.....	224,567	Feb. 17	692	197	17	347
Williams, Francis A., assignor of one-half interest to A. A. Drake, New York, N. Y. Column for elevated railways.....	224,568	Feb. 17	693	197	17	347
Williams, Frank B. (See Kahler, Conrad, assignor.)						
Williams, Frank E., New York, N. Y. Separable button.....	234,933	Nov. 30	1390	374	18	1246
Williams, Frederic A. (See Forbes, John A., assignor.)						
Williams, George, Mystic River, assignor of one-half interest to W. B. Manwaring, New London, Conn. Spark-arrester for car-windows.....	228,847	June 15	858	234	17	1376
Williams, George E. (See Walker and Williams.)						
Williams, George E., assignor of one-half interest to R. H. Lloyd, San Francisco, Cal. Magazine fire-arm.....	231,879	Aug. 31	1498	420	18	513
Williams, George H., Fort Smith, Ark. Brick-machine.....	234,101	Nov. 2	328	91	18	1041
Williams, George L., Edwardsville, Ill. Washing-machine.....	231,515	Aug. 24	1056	{ 296 } 297	18	438
Williams, George W. (See Long, George S., assignor.)						
Williams, George W., Sr., assignor of one-half interest to H. Cousins, Eau Claire, Wis. Milking-stool.....	230,910	Aug. 10	375	108	18	315
Williams, Henry A., Taunton, Mass., assignor to R. A. Cook, Woonsocket, R. I. Spindle for loom-shuttles.....	233,388	Oct. 19	750	205	18	877
Williams, Henry A., Taunton, Mass. Device for manufacturing twist-drills.....	234,362	Nov. 9	648	176	18	1103
Williams, Henry F., San Francisco, Cal. Desulphurizing ores.....	229,509	June 29	1624	.....	17	1500
Williams, Hubbard D. B. (See Barrow, Thomas E., assignor.)						
Williams, Humphrey J., New York Mills, N. Y. Bench-hook.....	232,094	Sept. 7	259	71	18	566
Williams, Irvin A., Utica, N. Y. Head-light for locomotives.....	235,924	Dec. 28	1080	{ 299 } 300	18	1484
Williams, Isaac Q., and G. H. Osborn, Goshen, Ark. Horse hay-rake.....	230,593	July 27	1307	368	18	236
Williams, James B. (See Kimball and Williams.)						
Williams, James C., Cleveland, Ohio. Device for cutting screw-threads.....	228,429	June 1	295	83	17	1274
Williams, James H., et al. (See Jordan, Edmund, assignor.)						
Williams, James H., New Market, Ky. Washing-machine.....	230,380	July 20	1023	289	18	183
Williams, James H., Utica, N. Y. Machine for making wire heddles.....	235,602	Dec. 14	669	189	18	1401
Williams, Jesse S. (See Pennoyer, Dorwin D., assignor.)						
Williams, John D., assignor of two-thirds interest to J. P. Fleming and H. Croker, Allegheny, Pa. Attachment for puddling-furnaces.....	227,339	May 4	282	82	17	1024
Williams, John H., Custer City, Pa. Water-packer for oil-wells.....	234,102	Nov. 2	330	91	18	1041
Williams, John P., et al. (See Page, Charles W., assignor.)						
Williams, John R., assignor, by mesne assignments, to Cambria Iron Company, Johnstown, Pa. Manufacture of horseshoe-blanks. (Reissue).....	9,111	Mar. 9	555	160	17	562
Williams, John R., Johnstown, Pa., assignor to Cambria Iron Company. Machine for cutting off horseshoe-blanks.....	225,252	Mar. 9	317	90, 91	17	524
Williams, John R., Johnstown, Pa., assignor to Cambria Iron Company. Creasing-machine for horseshoe-blanks.....	225,253	Mar. 9	318	91	17	524
Williams, John R., Johnstown, Pa., assignor to Cambria Iron Company. Machine for trimming horseshoe-blanks.....	225,254	Mar. 9	319	92	17	524
Williams, John R., Johnstown, Pa., assignor to Cambria Iron Company. Machine for trimming horseshoe-blanks.....	225,255	Mar. 9	320	92	17	525
Williams, John R., Johnstown, Pa., assignor to Cambria Iron Company. Die for forming toe-clips in horseshoes.....	225,256	Mar. 9	320	93	17	525
Williams, John R., Johnstown, Pa., assignor to Cambria Iron Company. Horseshoe-bending machine.....	225,257	Mar. 9	321	93	17	525
Williams, John R., Johnstown, Pa., assignor to Cambria Iron Company. Die for swaging horseshoes.....	225,258	Mar. 9	322	93, 94	17	525
Williams, John R., Johnstown, Pa., assignor to Cambria Iron Company. Manufacture of horseshoes.....	225,259	Mar. 9	323	94	17	525



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Williams, John R., Johnstown, Pa., assignor to Cambria Iron Company. Horseshoe.....	225,260	Mar. 9	323	94	17	525
Williams, John S., <i>et al.</i> (See Watkins, Alfred E., assignor.)						
Williams, Levi K., Joliet, Ill. Bracket-holder and bracket.....	231,976	Sept. 7	130	32, 33	18	545
Williams, Malcolm B. (See Weed and Williams.)						
Williams, Martin, St. Johnsville, N. Y. Grain thrasher and separator.....	225,450	Mar. 9	548	159	17	561
Williams, Oscar R. (See Fleek and Williams.)						
Williams, Philo B., Edgerton, Ohio. Car-coupling.....	230,379	July 20	1022	289	18	183
Williams, Richard P., Stephenville, Tex. Wagon-bow socket.....	236,133	Dec. 28	1336	366	18	1526
Williams, Richard S., New York, N. Y. Package for mercury, &c.....	231,740	Aug. 31	1326	373	18	487
Williams, Richard S., New York, N. Y. Dental amalgam filings.....	235,480	Dec. 14	524	151	18	1377
Williams, Robert E., <i>et al.</i> (See Draper, Henry V. P., assignor.)						
Williams, Robert F. (See Tucker and Williams.)						
Williams, Samuel T., Red Bank, N. J., assignor to himself and F. O. Matthiessen, Irvington, N. Y. Duct for filter-beds.....	231,131	Aug. 10	614	173	18	354
Williams, Sanford, Sedgwick, Kans. Wheat-drill.....	225,545	Mar. 16	671	196	17	592
Williams, Thomas C. (See Duke, Patrick H., assignor.)						
Williams, White & Co. (See Cross, Christopher G., assignor.)						
Williams, William C., <i>et al.</i> (See Fleming, Henry W., assignor.)						
Williams, William C., assignor of one-half interest to B. T. Frederick and J. M. Gilchrist, Marshalltown, Iowa. Lifting-jack.....	224,499	Feb. 10	599	173	17	321
Williams, William G., Cincinnati, Ohio. Flue-cleaner.....	227,398	May 11	364	107	17	1048
Williams, William H., Key West, Fla. Jack-screw.....	235,481	Dec. 14	525	151	18	1377
Williams, William L., San Diego, Cal. Machine for packing bran, &c.....	235,322	Dec. 7	304	86	18	1332
Williams, Zephaniah, Oakland, Cal. Dredging-machine.....	225,194	Mar. 2	239	67	17	497
Williamson, A. McIntosh, Philadelphia, Pa. Carriage-wheel.....	233,311	Oct. 12	633	175	18	851
Williamson, Catharine A., St. Louis, Mo. Shoulder-brace.....	228,238	June 1	95	28	17	1242
Williamson, George C. G., New York, N. Y. Porte-monnaie.....	223,789	Jan. 20	696	188	17	140
Williamson, John B., Louisville, Ky. Combined tape-measure and spring-scale.....	230,592	July 27	1306	368	18	236
Williamson, Rely M., Chicago, Ill. Pop-box.....	226,580	Apr. 13	500	141	17	841
Williamson, William H. (See Thompson and Williamson.)						
Willis, George F., Putnam, Conn. Temporary binder.....	228,501	June 8	410	119	17	1301
Willis, Josephus T., Mount Sterling, Ala. Horse-detacher.....	223,424	Jan. 6	243	64	17	44
Willis, Mitchell. (See Robbins, Edwin A., assignor.)						
Willis, Newell J., Cambridge, Mass. Shuttle for looms.....	225,673	Mar. 16	813	238	17	617
Willmeth, Charles S., assignor of one-half interest to M. W. Evans and O. J. Dudley, Sullivan, Ind. Corn-harvester.....	224,500	Feb. 10	600	173	17	322
Willms, Charles, Baltimore, Md. Saddle-bags for physicians' use.....	233,387	Oct. 19	749	205	18	877
Wills, Harry A., Chicago, Ill. Machine for finishing horseshoe-nails.....	224,062	Feb. 3	107	31, 32	17	221
Willsey, Jackson, and T. Shiverick, Chicago, Ill. Filter.....	223,794	June 15	797	218	17	1368
Willsey, Jackson, Chicago, Ill. Water-filter.....	231,464	Aug. 24	1000	281	18	430
Willson, Freeman R., Columbus, Ohio. Whiffletree.....	226,896	Apr. 27	899	250	17	928
Willson, Thomas A., and G. W. Meigs, Reading, Pa., assignors to said T. A. Willson. Spectacles. (Reissue.).....	9,241	June 8	687	188	17	1343
Willson, Thomas A., and G. W. Meigs, Reading, Pa., assignors to said Willson. Spectacle-frame.....	232,795	Sept. 28	1106	303	18	729
Wilmington, William, Toledo, Ohio. Car-wheel chill.....	228,428	June 1	294	83	17	1274
Wilmington, William, Toledo, Ohio. Car-wheel chill.....	231,130	Aug. 10	612	173	18	353
Wilmot, Samuel R., assignor to Bridgeport Brass Company, Bridgeport, Conn. Case for clock-work motors.....	223,425	Jan. 6	243	65	17	44
Wilsdon, Richard, assignor of one-half interest to J. S. Harbeck, Jr., Toledo, Ohio. Purifying and ventilating waste-pipes, &c.....	226,579	Apr. 13	499	141	17	840
Wilson, Bennet C., Philadelphia, Pa. Pantaloon-protector.....	224,369	Feb. 10	460	132	17	299
Wilson, Bennet C., Philadelphia, Pa. Pumping attachment for hydrant-hose, &c.....	224,370	Feb. 10	461	132	17	299
Wilson, Bennet C., Philadelphia, Pa. Fire-extinguisher.....	235,837	Dec. 21	951	265	18	1456
Wilson, Bryce A., Providence, R. I. Bridle-front.....	234,445	Nov. 16	772	207	18	1132
Wilson, Charles B. (See Moody, Charles D., assignor.)						
Wilson, Charles C., Washington, D. C. Hand-stamp.....	227,603	May 11	595	170	17	1087
Wilson, Charles C., Washington, D. C. Hand-stamp.....	220,848	Aug. 3	292	83	18	295
Wilson, Charles R. (See Pusey, Joshua, assignor.)						
Wilson, Charles R., Detroit, Mich. Platform-gear for vehicles.....	234,700	Nov. 23	1103	296 297	18	1193
Wilson, Charles S. (See Smith, Lewis, assignor.)						
Wilson, Eri F. (See Harrison and Wilson.)						
Wilson, F. Cortez, Chicago, Ill. Swinging cans.....	229,293	June 29	1365	374	17	1465
Wilson, Fitzland L., Saginaw, Mich. Wooden box.....	228,011	May 25	1094	311	17	1186
Wilson, George F. (See Hunt, Homer P., assignor.)						
Wilson, George F., East Providence, R. I. Wagon-seat fastener.....	228,151	May 25	1241	352	17	1210
Wilson, George F., East Providence, and P. O'Reilly, Providence, R. I. Preparation of paper-stock from colored rags.....	227,463	May 11	438	126	17	1060
Wilson, George F., East Providence, and P. O'Reilly, Providence, R. I. Manufacture of wood pulp for paper.....	227,464	May 11	440	.....	17	1061
Wilson, George F., East Providence, and C. A. Catlin, Providence, R. I. Preparation of potassium phosphate for baking-powder.....	229,573	July 6	79	.....	18	21
Wilson, George F., East Providence, and C. A. Catlin, Providence, R. I. Preparation of sodium phosphate for baking-powder.....	229,574	July 6	80	.....	18	21
Wilson, George W. (See Amick, Pleasant, assignor.)						
Wilson, Gilbert H., Summit township, Jackson county, Mich. Car-coupling.....	224,262	Feb. 3	324	93	17	257
Wilson, Grace. (See Wilson, James G., assignor.) (Reissue.)						
Wilson, Hattie D., New York, N. Y. Combined stay and shoulder-brace.....	232,162	Sept. 14	341	96	18	588
Wilson, Hence, Jewett, Tex. Artificial-stone tomb.....	223,380	Apr. 6	256	75	17	793
Wilson, Henry W. A. Gandy, and J. R. Shugert, Freeport, Ohio, assignors to said Shugert, R. M. Black, and J. C. Carver. Trace or tug buckle.....	227,938	May 25	998	286	17	1172
Wilson, Isaac A., Zanesville, Ohio. Corn-sheller.....	231,132	Aug. 10	615	174	18	354
Wilson, Jacob W., Somerford, assignor, by mesne assignments, to A. Watson and F. A. Jacobs, Columbus, Ohio. Rotary road-scraper. (Reissue).....	9,150	Apr. 13	511	144	17	843
Wilson, James D., Montague, Mich. Steam-valve.....	226,218	Apr. 6	82	21	17	760
Wilson, James E., Chicago, Ill. Trimming attachment for sewing-machines.....	226,432	Apr. 13	331	95	17	815
Wilson, James E., Bridgeport, Conn. Lathe-chuck.....	234,216	Nov. 9	483	132	18	1075
Wilson, James G. (See Aker, Alfred, assignor.)						
Wilson, James G., New York, N. Y., assignor, by mesne assignments, to G. Wilson. Rolling shutter. (Reissue).....	9,047	Jan. 13	521	140	17	104
Wilson, James G., assignor to F. Forbes, New York, N. Y. Shutter.....	229,786	July 6	319	88	18	55
Wilson, James L., Calhoun, Ga. Stove-boiler heater.....	232,163	Sept. 14	342	96	18	589
Wilson, James R., Buffalo, N. Y. Chemical fire-extinguisher.....	231,696	Aug. 31	1271	357	18	479

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Wilson, Jefferson, Beaver Falls, Pa. Animal-power.....	232,384	Sept. 21	623	172	18	642
Wilson, John A., Baltimore, Md. Gas-governor.....	233,451	Oct. 19	830	229	18	890
Wilson, John C., Boston, Mass. Multiple-telegraph relay.....	229,068	June 22	1115	303	17	1421
Wilson, John T., Pittsburg, Pa. Car-coupling.....	229,849	July 13	405	112	18	77
Wilson, Joseph P., Minneapolis, Minn. Nut-lock.....	223,622	Jan. 13	503	136	17	100
Wilson, Merrick F., Chicago, assignor of one-half interest to C. R. Steele and V. C. Price, & Waukegan, Ill. Making paper boxes.....	227,143	May 4	69	19	17	989
Wilson, M. Hoffman, Brooklyn, N. Y. Piano-stool.....	224,857	Feb. 24	1047	298	17	421
Wilson, Nathaniel, Chillicothe, Ohio. Surveyor's combined protractor and scale.....	224,811	Feb. 24	998	282	17	413
Wilson, Orville A., assignor to himself and H. Lakin, Bennington, N. H. Knife.....	229,219	June 22	1272	350	17	1444
Wilson, Oscar B., Collinsville, Ill. Coating stock-bells with brass.....	234,900	Nov. 30	1353	.....	18	1240
Wilson, Pierce B., Baltimore, Md. Amalgamator.....	231,878	Aug. 31	1498	420	18	513
Wilson, Rector R., Stewart, Ohio. Nail and spike extractor.....	229,220	June 22	1273	350	17	1444
Wilson, Riley P., New York, N. Y. Apparatus for desulphurizing ores.....	226,692	Apr. 20	654	182	17	876
Wilson, Riley P., New York, N. Y., assignor to Wilson Smelting and Mining Company. * Smelting-oven.....	228,793	June 15	796	217	17	1368
Wilson, Samuel W., assignor to W. S. and G. Earl, Troy, and W. Wilson, New York, N. Y. * Cuff.....	234,361	Nov. 9	647	176	18	1103
Wilson Sewing Machine Company. (See Wilson and Darling, assignors.)						
Wilson, Silas H., Auburn, N. Y. Machine for twisting spikes.....	227,084	Apr. 27	1130	310	17	963
Wilson Smelting and Mining Company. (See Wilson, Riley P., assignor.)						
Wilson, Thomas M., Indianapolis, Ind. Lubricator.....	226,433	Apr. 13	332	95	17	815
Wilson, Thornton, Jackson township, Parke county, Ind. Animal-trap.....	225,251	Mar. 9	316	90	17	524
Wilson, Washington, <i>et al.</i> (See Shaw, Charles H., assignor.)						
Wilson, Washington, <i>et al.</i> (See Wilson, Samuel W., assignor.)						
Wilson, William. (See Chandley and Wilson.)						
Wilson, William, Oakland, Cal. Valve for sewer-traps, &c.....	225,776	Mar. 23	951	274	17	649
Wilson, William, Otsego, Mich. Apparatus for forming cement sewers or pipes.....	233,825	Oct. 26	1274	357	18	975
Wilson, William, Otsego, Mich. Apparatus for lining wells.....	233,826	Oct. 26	1275	357	18	975
Wilson, William, Jr. (See Green, Charles, assignor.)						
Wilson, William, Jr., Greenville, Del., assignor of one-half interest to C. Green. Machine for looping and cutting wire. (Reissue).....	9,404	Oct. 12	640	177	18	852
Wilson, William, Jr., assignor of one-half to C. Green, Greenville, Del. Can or keg for oils.....	234,363	Nov. 9	649	176	18	1103
Wilson, William, Jr., assignor of one-half to C. Green, Greenville, Del. Combined handle, bail, and strap-holder for cans, &c.....	234,364	Nov. 9	650	176	18	1103
Wilson, William, Jr., assignor of one-half to C. Green, Greenville, Del. Corrugating-roll.....	234,365	Nov. 9	650	177	18	1103
Wilson, William G., and G. S. Darling, assignors to Wilson Sewing Machine Company, Chi- cago, Ill. Shuttle-race for sewing-machines.....	233,588	Oct. 19	979	271	18	915
Wilson, William H., Xenia, Ohio. Detachable point and fastening for grain-drill teeth.....	225,674	Mar. 16	813	238	17	617
Wilson, William H., Oneida, N. Y. Lathe-chuck.....	235,836	Dec. 21	949	265	18	1455
Wilson, William J., Stephenville, Tex. Grain-toller.....	230,378	July 20	1021	289	18	182
Wilson, William M. (See Gillig, Louis, assignor.)						
Wilson, William W. (See Foard, Jeremiah W., assignor.) (Reissue.)						
Wimmer, Thomas J., <i>et al.</i> (See Hayes, James H., assignor.)						
Wimpee, William, Rome, Ga. Combined clod-cutter and harrow.....	233,056	Oct. 5	312	86	18	789
Winchell, James F., assignor of one-half interest to J. W. Hall, Springfield, Ohio. Remova- ble table-leg.....	231,880	Aug. 31	1500	420	18	514
Winchell, Uriah B., Oak Hill, N. Y. Stove-pipe damper.....	234,366	Nov. 9	652	177	18	1104
Winchell, Virgil H., Olive, N. Y. Churn-power.....	225,777	Mar. 23	952	274	17	649
Winchester, Gilman K., Providence, R. I., assignor to Silver Lake Company, Newton, Mass. Machine for making cordage.....	227,940	May 25	999	287	17	1172
Winchester Repeating Arms Company. (See Barlow, John H., assignor.)						
Winchester Repeating Arms Company. (See Bennett, Thomas G., assignor.)						
Winchester Repeating Arms Company. (See Bitz, Charles F., assignor.)						
Winchester Repeating Arms Company. (See Burns, Henry S., assignor.)						
Winchester Repeating Arms Company. (See Gardner, John, assignor.)						
Winchester Repeating Arms Company. (See Hill, Martin V. B., assignor.)						
Winchester Repeating Arms Company. (See Hunt, Edwin R., assignor.)						
Winchester Repeating Arms Company. (See King, Nelson, assignor.) (Reissue.)						
Winchester Repeating Arms Company. (See King, Victor A., assignor.)						
Winchester Repeating Arms Company. (See Salisbury, George P., assignor.)						
Winchester Repeating Arms Company. (See Sweeney and Wetmore, assignors.)						
Winchester Repeating Arms Company. (See Wetmore and Bennett, assignors.)						
Winchester Repeating Arms Company. (See Wetmore, William W., assignor.)						
Windle, John E., Millville, Mass. Cloth-measuring machine.....	230,381	July 20	1024	289	18	183
Winegar, William W., Chambersburg, Ill. Double-tree.....	231,946	Sept. 7	80	21	18	537
Winegar, William W., Chambersburg, Ill. Attachment to grain-drills.....	235,838	Dec. 21	954	266	18	1456
Wineman, Parker, and G. W. Bohannon, Chicago, Ill. Trotting-sulky.....	227,086	Apr. 27	1134	311	17	964
Wing, Charles H., <i>et al.</i> (See Proctor, David R., assignor.)						
Wing, Clifton E., <i>et al.</i> (See Proctor, David R., assignor.)						
Wing, Franklin S., Onarga, Ill. Corn-planter.....	228,710	June 8	646	175	17	1336
Wing, Henry S., Grand Rapids, Mich. Carpet-sweeper.....	224,316	Feb. 10	398	{ 112 113 }	17	289
Wing, Henry S., Grand Rapids, Mich. Carpet-sweeper.....	227,941	May 25	1001	287	17	1172
Wingard, Edwin V., Vincennes, Ind. Drier.....	231,133	Aug. 10	616	174	18	354
Wingate, George F., Riverside, Ill. Wagon-tongue support.....	234,446	Nov. 16	773	207	18	1132
Winger, Elam B., <i>et al.</i> (See Schofield, Silas C., assignor.) (Reissue.)						
Winger, Hans H., Chicago, Ill. Curtain-cornice.....	227,466	May 11	442	127	17	1061
Winger, Oswald E., Freeport, Ill. Grinding-mill.....	227,465	May 11	441	{ 126 127 }	17	1061
Winghart, William J., New York, N. Y. Commode.....	226,011	Mar. 30	1241	351	17	709
Winkel, William, East New York, N. Y. Bottle-stopper and stopper-fastener.....	229,850	July 13	406	112	18	77
Winkley, L. W. (See Torrey, Bartlett N., assignor.)						
Winn, Ammi C., and G. L. Winship, Boston, Mass. Ice-cream freezer.....	225,676	Mar. 16	815	{ 238 239 }	17	618
Winn, James N., Darien, Ga. Car-coupling.....	223,426	Jan. 6	244	65	17	41
Winn, James N., Darien, Ga. Car-coupling.....	225,675	Mar. 16	814	238	17	618
Winnek, Frederick G., Osage, Iowa. Harrow-tooth.....	229,788	July 6	321	89	18	55
Winship, George, Atlanta, Ga., assignor to himself and R. Winship. Cotton cleaner and condenser.....	232,096	Sept. 7	260	72	18	567
Winship, Gustavus L. (See Winn and Winship.)						
Winship, Robert. (See Winship, George, assignor.)						
Winslow, Alonzo P., Cleveland, Ohio. Car-roof.....	233,057	Oct. 5	314	87	18	790

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Winslow, Freeman, trustee. (See Buzzell, John G., assignor.)						
Winslow, Freeman. (See Rogers, Josiah W., assignor.)						
Winslow, George C., Kalamazoo, Mich. Harrow-tooth	227,085	Apr. 27	1133	311	17	964
Winslow, George C., Kalamazoo, Mich. Harrow and cultivator tooth	234,639	Nov. 16	1018	272 273	18	1173
Winslow, Gorham N., assignor of one-half to J. W. Woods, Boston, Mass. Velocipede	235,925	Dec. 28	1086	300	18	1485
Winslow, Henry B. (See Caldwell and Winslow.) (Reissue.)						
Winslow, James S., et al. (See Champagne, Frederick, assignor.)						
Winslow, Samuel, Worcester, Mass. Roller-skate	230,094	July 13	667	187	18	117
Winslow, Seth, Somerville, Mass. Wardrobe-bedstead	235,479	Dec. 14	523	151	18	1377
Winter, Alexander W., assignor of one-half interest to W. T. Coleman, San Francisco, Cal. Purifying fats and oils	233,453	Oct. 19	832		18	890
Winter, David T., assignor of one-half interest to C. E. Teague, Peabody, Mass. Device for preventing vibrations of pointers of scale-dials	231,741	Aug. 31	1327	373	18	487
Winter, George K. (See Muirhead, Briggs, and Winter.)						
Winter, George K. (See Muirhead and Winter.)						
Winter, William W., Cortland Village, N. Y. Neck-yoke	228,502	June 8	410	112	17	1301
Winterbottom, William S., Philadelphia, and J. Murray, Conshohocken, Pa. Saw-clamp	229,851	July 13	407	112	18	77
Winterburn, John, Cambria, Cal. Ore-roasting furnace. (Reissue.)	9,454	Nov. 9	679	184	18	1108
Winters, Francis, Jr., New York, N. Y. Electric lamp	223,790	Jan. 20	697	188	17	140
Winters, Francis, Jr., New York, N. Y. Cylindrical valve	225,677	Mar. 16	817	239	17	618
Winters, Leroy S. (See Smith and Winters.)						
Wintherlich, Hans J. and W. T., Chicago, Ill. Process and machine for making drop-shot	224,858	Feb. 24	1048	299	17	421
Wintherlich, Hans J. and W. T., Chicago, Ill. Drop-shot	236,134	Dec. 28	1337		18	1526
Wintherlich, Waldemar T. (See Wintherlich, Hans J. and W. T.)						
Winthrop, Walter. (See Nimmo, Edward B., assignor.)						
Wintrade, Jacob, Huntington, and H. G. Solomon, Hope, Ind. Fence	224,501	Feb. 10	602	175	17	322
Wipfler, Charles W. (See Herrick, Wipfler, and Roberts.)						
Wires, Ephraim L. (See Ambler and Wires.)						
Wise, Colloman. (See Snhr and Wise.)						
Wise, Leo H., Baltimore, Md. Overalls	234,512	Nov. 16	848	226	18	1144
Wise, Leonard F. (See Griffin, Caleb H., assignor.)						
Wise, Sarah J. (See Davis, Ira S., assignor.)						
Wiseman, Edmund, Luton, England. Straw-braid sewing-machine	228,711	June 8	647	175 176	17	1336
Wishart, James M., Grinnell, Iowa. Harvester	228,154	May 25	1244	353	17	1211
Wisner, James E. (See Holden, Cyrus B., assignor.) (Reissue.)						
Wiswell, Frederick A. (See Gilman and Wiswell.)						
Wiswell, Theodore L., Olathe, Kans. Hame-fastener	233,312	Oct. 12	634	175	18	851
Wiswell, Theodore L., Olathe, Kans. Buckle	235,323	Dec. 7	305	86	18	1332
Witham, Robert W., assignor to J. Mundell & Co., Philadelphia, Pa. Boot and shoe	225,451	Mar. 9	550	159	17	561
Wither, Joseph B., Dedham, Me. Millstone-balancing device	229,787	July 6	320	89	18	55
Witherell, Eric A., assignor to H. E. Dick, Galesburg, Ill. Magneto-electric machine	223,623	Jan. 13	504	136	17	100
Witherington, Willis F., Kenton, Tenn. Animal-trap	231,134	Aug. 10	618	175	18	354
Withers, Addison L., Jr., Summit Point, W. Va. Wagon-brake	227,194	May 4	124	36	17	998
Withers, Addison L., Jr., Summit Point, W. Va. Wagon-brake	235,719	Dec. 21	814	229	18	1432
Withers, Walter S., Atlanta, Ga. Tea-kettle	229,512	June 29	1626	448	17	1500
Witherspoon, James B., New Providence, Ky. Lining for fire-places	232,621	Sept. 28	898	248	18	695
Withey, James L., Melrose, assignor to G. McKay, trustee, Boston, Mass. Machine for sewing boots and shoes	224,063	Feb. 3	109	32	17	221
Withey, John F., Lynn, Mass. Pamphlet-trimmer	228,795	June 15	798	218	17	1368
Withington, Charles B., Janesville, Wis., assignor to McCormick Harvesting Machine Company, Chicago, Ill. Grain-binder	225,195	Mar. 2	241	67, 68	17	498
Withington, Charles B., Janesville, Wis., assignor to C. H. & L. J. McCormick, Chicago, Ill. Grain-binder	230,382	July 20	1025	290	18	183
Withington, Charles B., Janesville, Wis. Grain-binder	230,383	July 20	1027	291	18	183
Withington, Charles B., Janesville, Wis., assignor to C. H., L. J., and R. H. McCormick, Chicago, Ill. Grain-binder	234,638	Nov. 16	1016	271 272	18	1172
Withington & Cooley Manufacturing Company. (See Beebe, Calvin T., assignor.)						
Withington & Cooley Manufacturing Company. (See Hamblin, James B., assignor.)						
Withington & Cooley Manufacturing Company. (See Richardson, Julius C., assignor.)						
Withington, James. (See Hewitt and Withington.)						
Witmer, Abraham R., Safe Harbor, Pa. Car-starter	235,324	Dec. 7	307	86	18	1332
Witmer, John M., assignor of one-half interest to S. M. Hess, Quarryville, Pa. Telegraph-key	230,911	Aug. 10	375	109	18	315
Witsil, Elias, assignor of one-half to J. Downey, Philadelphia, Pa. Railway-switch	234,103	Nov. 2	331	91	18	1042
Witsil, George L., assignor of one-half interest to J. Mundell, Jr., Philadelphia, Pa. Heat-protecting cap	228,796	June 15	801	218	17	1368
Witsil, George L., assignor to T. L. Bates and B. A. Hines, Philadelphia, Pa. Clay washer and grinder	229,932	July 13	493	137 138	18	90
Witt, Daniel, Hubbardston, assignor of one-half interest to L. E. Bathrick, Winchendon, Mass. Boot-jack	227,939	May 25	998	286	17	1172
Witt, William A., Norris Fork, Mo. Animal-tether	227,666	May 18	668	190	17	1109
Wittenberg, Charles, assignor to N. S. Byram and E. G. Cornelius, Indianapolis, Ind. Velocipede	235,720	Dec. 21	815	229	18	1432
Wittenmeier, Frederick, Columbus, Ohio. Vegetable-grater	225,313	Mar. 9	401	117	17	536
Witter, Joshua B., Friendship, N. Y. Horse hay-rake	227,604	May 11	595	170	17	1087
Witter, Joshua B. and M. J., Friendship, N. Y. Harness-hook	229,348	June 29	1442	397	17	1475
Witter, Myron J. (See Witter, Joshua B. and M. J.)						
Witthaus, Erich L., Baltimore, Md. Cigarette	229,931	July 13	493	137	18	90
Wittig, Wilhelm, and W. Hees, Hanover, Prussia, Germany. Gas-engine	225,778	Mar. 23	953	274	17	649
Woerber, Amos. (See Ligowsky and Woerber.)						
Woerd, Charles V., Waltham, Mass. Stem winding and setting watch	230,596	July 27	1309	369	18	237
Woerd, Charles V., Waltham, Mass. Rosette-lathe	232,584	Sept. 21	842	234 235	18	679
Wofford, Henry C., Clinton Station, S. C. Car-coupling	229,511	June 29	1625	448	17	1500
Wohlers, Emil, assignor of one-half to Nathan & Dreyfus, New York, N. Y. Injector	234,157	Nov. 9	405	110	18	1061
Wohlers, Emil, assignor of one-half to Nathan & Dreyfus, New York, N. Y. Injector	234,158	Nov. 9	406	110	18	1061
Wohlforth, Charles F., and C. W. Wakefield, Norwich, Conn. Car-brake	229,510	June 29	1625	447	17	1500
Wohltmann, Wilhelm, New York, N. Y. Purifying tobacco	225,903	Mar. 23	1085	310	17	672
Wojan, Herrmann, Golden's Bridge, N. Y. Ox-bow fastener	227,399	May 11	365	107	17	1048
Wolf, Abraham N. (See Wolf, Augustus and A. N.) (Reissue.)						
Wolf, Abraham N., Allentown, Pa. Middlings-separator	230,597	July 27	1310	369 370	18	237

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Wolf, Alfred J., <i>et al.</i> (See Stanton, John W., assignor.)						
Wolf, Augustus and A. N., Allentown, assignors, by mesne assignments, to themselves and D. L. Hamaker, East Hempfield township, Lancaster county, Pa. Machine for separating middlings. (Reissue)	9,170	Apr. 20	802	223	17	902
Wolf, David, Avon, Pa. Plow	233,827	Oct. 26	1277	{ 357 358 }	18	975
Wolf, David, Avon, Pa., assignor, by mesne assignments, to W. H. Beebe, Chicago, Ill. Mowing-machine. (Reissue)	9,216	May 25	1260	357	17	1213
Wolf, David, Avon, Pa., assignor, by mesne assignments, to W. H. Beebe. Mowing-machine. (Reissue)	9,362	Aug. 31	1511	423	18	516
Wolf, Simon, <i>et al.</i> (See Klemm, Frank A., assignor.)						
Wolf, Simon, <i>et al.</i> (See Tisdell, Abner G., assignor.)						
Wolf, William. (See Dannnhauer, Fredrick P., assignor.)						
Wolfe, David H., Nodaway township, Page county, assignor of one-half interest to N. L. Van Sandt, Clarinda, Iowa. Gate	228,966	June 15	983	267	17	1394
Wolfe, William H., Fishersville, Va. Egg-carrier	227,870	May 18	898	256	17	1145
Wolfsenden, Shore & Co. (See Goodyear, Robert B., assignor.)						
Wolff, Charles L., Edgewater, N. Y. Centering apparatus	230,384	July 20	1032	291	18	184
Wolff, Isaac, <i>et al.</i> (See Sumner, Eli J., assignor.) (Reissue)						
Wolff, John F., assignor of one-half interest to J. W. Mower, Chicago, Ill. Manufacturing glucose	226,434	Apr. 13	333	.....	17	815
Wolff, Julius, Eastport, Me. Venting sealed cans	229,789	July 6	322	.....	18	55
Wolff, Max, <i>et al.</i> (See Sumner, Eli J., assignor.) (Reissue)						
Wolff, Peter, Aachen, Prussia, Germany. Closure for sewer-pits	233,454	Oct. 19	833	{ 229 230 }	18	890
Wolff, Theresia. (See Klier, Andrew, assignor.)						
Wolford, Odie T. B., <i>et al.</i> (See Gehr, John, assignor.)						
Wollensak, John F., Chicago, Ill. Transom-lifter. (Reissue)	9,307	July 20	1043	294	18	186
Wollet, George, Williamsport, Pa. Jack	231,135	Aug. 10	619	175	18	354
Wollet, George, Williamsport, Pa. Lifting-jack	234,105	Nov. 2	334	92	18	1042
Wolseley, Frederick Y., Melbourne, Victoria. Device for shearing horses	223,664	Jan. 20	562	{ 151 152 }	17	118
Wolstencroft, James, assignor to J. Pollitt and W. Wolstencroft, Philadelphia, Pa. Coiling mechanism of carding-engines and drawing-frames	224,979	Feb. 24	1174	336	17	442
Wolstencroft, William, <i>et al.</i> (See Wolstencroft, James, assignor.)						
Wolstenholme, James, Buffalo, N. Y. Apparatus for burning fuel	234,448	Nov. 16	775	208	18	1132
Wolters, Johann A. W., Leipsic, Saxony, Germany. Manufacture of anhydrous sulphuric acid	223,571	Jan. 13	448	.....	17	91
Wolverton, Simon P. (See Lyon, George, assignor.)						
Wood, Albert A., Atlanta, Ga. Gin-saw-filing machine	232,321	Sept. 14	532	{ 147 148 }	18	621
Wood, Amos L., Boston, Mass. Apparatus for aging liquors	229,223	June 22	1275	351	17	1445
Wood, Augustus B., Fountain Hill, Ark. Oscillating engine	230,515	July 27	1219	{ 343 344 }	18	221
Wood, Austin C., Syracuse, N. Y. Valve	227,943	May 25	1003	288	17	1173
Wood, Benjamin L. (See Reury, Joseph H., assignor.)						
Wood, Calvin M. and R. M., Healdsburg, Cal. Car-axle box	234,159	Nov. 9	407	{ 110 111 }	18	1061
Wood, Charles. (See Johnston, Mallette, and Wood.)						
Wood, Charles C. J., Chicago, Ill. Fire-escape	227,401	May 11	367	{ 108 109 }	17	1049
Wood, Charles H., Wrentham, Mass. Button	226,815	Apr. 20	783	218	17	898
Wood, Charles H., Chicago, Ill. Combined washing and wringing machine	228,239	June 1	96	29	17	1242
Wood, Edmund L., assignor of one-half interest to D. Boone and C. U. Connelley, Eastland City, Tex. Blacking-brush	232,585	Sept. 21	845	235	18	679
Wood, Edwin A., Utica, N. Y. Grate	233,652	Oct. 26	1079	300	18	941
Wood, Francis L., Boston, Mass., assignor to Spirit Purifying and Aging Company, Hartford, Conn. Apparatus for aging and purifying spirituous liquors	235,840	Dec. 21	957	266	18	1457
Wood, George, Cranston, R. I. Car-coupling	227,942	May 25	1002	288	17	1172
Wood, George, Jr., Piermont, N. H. Mail and traveling bag fastening	231,639	Aug. 24	1194	334	18	460
Wood, George H., Gouverneur, N. Y. Operating earth-augers	225,453	Mar. 9	552	{ 159 160 }	17	562
Wood, James, Syracuse, N. Y. Rock-drilling machine	228,797	June 15	801	219	17	1368
Wood, James F., <i>et al.</i> (See Carter, Harvey K., assignor.)						
Wood, James F., and J. A. Wilkison, Brooklyn, N. Y. Heating apparatus for barrel-bodies	226,435	Apr. 13	335	95, 96	17	815
Wood, James J., Brooklyn, assignor to Fuller Electrical Company, New York, N. Y. Magneto-electric machine	231,745	Aug. 31	1331	375	18	488
Wood, James J., Brooklyn, assignor to Fuller Electrical Company, New York, N. Y. Electric lamp	233,589	Oct. 19	980	271	18	916
Wood, James S., and O. W. Vau Osdell, Rock Island, Ill. Cheek-row attachment for corn-planters	230,456	July 27	1158	{ 326 327 }	18	211
Wood, John, Cooperstown, N. Y. Stock-car	226,897	Apr. 27	900	250	17	928
Wood, John B., <i>et al.</i> (See Carter, Harvey K., assignor.)						
Wood, John F., Boston, Mass. Treatment of emery-wheels	227,402	May 11	368	.....	17	1049
Wood, John H., Trenton, N. J. Wagon for unloading coal. (Reissue)	9,368	Aug. 31	1518	425	18	518
Wood, Joseph, assignor of one-half interest to A. S. Vogt, Altoona, Pa. Automatic railway-train arrester	230,097	July 13	671	188	18	118
Wood, Joseph S., assignor to himself and D. Dekremen, Brooklyn, N. Y. Vapor-burner	226,816	Apr. 20	784	218	17	898
Wood, Joseph S., Brooklyn, N. Y. Gas apparatus	228,848	June 15	859	235	17	1376
Wood, Julien P., Marlborough, Mass. Combined eyelet punch and setting machine	228,156	May 25	1246	{ 333 334 }	17	1211
Wood, Levi S., Marion, Iowa. Cultivator-teeth	233,058	Oct. 5	315	87	18	790
Wood, Marshall, Alderson, assignor to himself and J. A. Montgomery, Lewisburg, W. Va. Railway-switch	230,095	July 13	668	187	18	118
Wood, Rolde M. (See Wood, Calvin M. and R. M.)						
Wood, Samuel A. (See Woodward, Arthur T., assignor.)						
Wood, Stephen S., New York, N. Y. Sand-distributor for street-cars	225,904	Mar. 23	1086	310	17	672
Wood, Wade P., Leon, Iowa. Automatic brake for wagons	223,791	Jan. 20	698	188	17	140
Wood, Walter A., and J. M. Rosebrooks, Hoosick Falls, N. Y. Mowing-machine	220,598	July 27	1311	370	18	237
Wood, William B., Franklin, Ky. Steam-cooker	225,905	Mar. 23	1087	310	17	672
Wood, William B., assignor of one-half interest to T. O. Townsend, Franklin, Ky. Poisoned artificial Jamestown-weed flower for attracting and destroying the tobacco-fly	229,222	June 22	1275	350	17	1445
Wood, William H., Rochester, N. Y. Shoe	228,155	May 25	1245	353	17	1211



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Wood, William H. H., Brookline, Mass. Check-box for restaurants.....	225,036	Mar. 2	70	20	17	468
Wood, William P. and W. T., assignors, by mesne assignments, to I. E. Blumenberg, Washington, D. C. Vapor-engine. (Reissue).....	9,400	Oct. 5	323	89	18	792
Wood, William T. (See Wood, William P. and W. T.) (Reissue.).....						
Woodard, John E., and W. B. Bennett, Portage, assignors of one-third interest to K. A. Smith, Kalamazoo, Mich. Clover-thresher.....	233,719	Oct. 26	1154	321	18	954
Woodbridge, Charles L., Brooklyn, N. Y. Producing designs on buttons.....	234,106	Nov. 2	335		18	1042
Woodbury, Daniel A., Rochester, N. Y. Crank-pin.....	230,098	July 13	673	188	18	119
Woodbury, Daniel A., Rochester, N. Y. Lubricator for slides for steam-engines and other machinery.....	230,099	July 13	673	188	18	119
Woodbury, Edward F. (See Woodbury, Merrill, Patten, and Woodbury.).....						
Woodbury, George L. (See Woodbury, Joseph L. and G. L.).....						
Woodbury, James A., Boston, Mass. Car-wheel.....	228,430	June 1	296	84	17	1274
Woodbury, James A., J. Merrill, G. Patten, and E. F. Woodbury, Boston, Mass. Air-engine.....	228,712	June 8	650	{ 176 177 }	{ 17 17 }	{ 1337 1337 }
Woodbury, James A., J. Merrill, G. Patten, and E. F. Woodbury, Boston, Mass. Air-engine.....	228,713	June 8	656	178	17	1338
Woodbury, James A., J. Merrill, G. Patten, and E. F. Woodbury, Boston, Mass. Air-engine.....	228,714	June 8	659	179	17	1338
Woodbury, James A., J. Merrill, G. Patten, and E. F. Woodbury, Boston, Mass. Air-engine.....	228,715	June 8	661	{ 179 180 }	{ 17 17 }	{ 1339 1339 }
Woodbury, James A., J. Merrill, G. Patten, and E. F. Woodbury, Boston, Mass. Air-engine.....	228,716	June 8	663	{ 180 181 }	{ 17 17 }	{ 1339 1339 }
Woodbury, James A., J. Merrill, G. Patten, and E. F. Woodbury, Boston, Mass. Heater for air-engines.....	228,717	June 8	667	182	17	1340
Woodbury, Joseph L. and G. L., Oxford, Mass. Reversible plow.....	225,452	Mar. 9	551	159	17	561
Woodford, Charles W., Essex, N. Y. Lubricating apparatus.....	232,097	Sept. 7	261	72	18	567
Woodford, Hervey M., Marcellus, N. Y. Wagon-brake.....	229,575	July 6	81	22	18	21
Woodhead, Samuel, West Troy, N. Y. Machine for closing seams in sheet-metal roofs.....	233,828	Oct. 26	1278	358	18	976
Woodhill, John, and J. O'Gorman, Cleveland, Ohio. Iron fence.....	224,502	Feb. 10	603	175	17	322
Woodhill, John, and J. O'Gorman, Cleveland, Ohio. Iron fence.....	230,727	Aug. 3	150	44	18	271
Woodhull, Curtis, Buffalo, N. Y. Vapor-burner.....	224,371	Feb. 10	462	132	17	299
Woodhull, Morris, Dayton, Ohio. Vehicle-spring.....	224,859	Feb. 24	1049	299	17	421
Woodhull, Morris, Dayton, Ohio. Fifth-wheel for vehicles.....	235,325	Dec. 7	308	87	18	1332
Woodman, Asa D., Chicago, Ill. Steam-generator.....	232,220	Sept. 14	411	114	18	600
Woodruff Brothers. (See Sylvester, Philip L., assignor.).....						
Woodruff Brothers. (See Wickes, Charles R., assignor.).....						
Woodruff, Charles D., assignor of one-half interest to D. H. Hansell, Philadelphia, Pa. Core anchor and stud. (Reissue).....	9,103	Mar. 2	253	71	17	500
Woodruff, Charles H. (See Woodruff, William P. and C. H.).....						
Woodruff, Charles S., Troy, N. Y. Toe-weight for horses.....	230,385	July 20	1033	292	18	184
Woodruff, Chauncey D., Toledo, Ohio, assignor to W. H. Tucker and R. S. Dorsey, Indianapolis, Ind. Adjustable rolling support for stoves. (Reissue).....	9,283	July 6	333	92	18	57
Woodruff, George S., et al. (See Needles, James H., assignor.).....						
Woodruff, John H. (See Wickes, Charles R., assignor.).....						
Woodruff, Lyman, Ellensburg, Oreg. Stock-car.....	233,129	Oct. 12	417	{ 114 115 }	{ 18 18 }	{ 813 813 }
Woodruff, Martin H., Ellicottville, N. Y. Sulky drag or harrow.....	231,385	Aug. 17	908	255	18	408
Woodruff, Merit N., et al. (See Pearce, William, assignor.).....						
Woodruff, William E., Jr., Little Rock, Ark. Addressing-machine.....	224,064	Feb. 3	111	32	17	222
Woodruff, William P. and C. H., assignors to Tennant & Hattersly, New York, N. Y. Metallic steam-packing.....	226,644	Apr. 20	603	168	17	868
Woodruff, William P., New York, N. Y. Adjustable metallic awning.....	229,221	June 22	1274	350	17	1445
Woodruff, William P. and C. H., New York, N. Y. Steam-packing.....	230,978	Aug. 10	447	128	18	326
Woodruff, William W. (See Taylor, Elbert C., assignor.).....						
Woods, Charles M. (See Beebe, George F. and W. O., assignors.).....						
Woods & Co., George. (See Fogelberg and Graves, assignors.).....						
Woods, Francis, Boston, Mass. Rope-making machine.....	235,839	Dec. 21	955	266	18	1457
Woods, Frank M., York, assignor of one-half interest to J. Morton, Marshall, Ill. Presser-foot and guide for scroll-saws.....	233,059	Oct. 5	315	87	18	790
Woods, George, Cambridgeport, Mass. Reed-organ. (Reissue).....	9,308	July 20	1044	295	18	186
Woods, George, Cambridgeport, Mass. Piano-case. (Reissue).....	9,412	Oct. 12	657	{ 180 181 }	{ 18 18 }	{ 855 855 }
Woods, James L., Alliance, Ohio. Corn-sheller.....	234,831	Nov. 23	1264	339	18	1219
Woods, John, Melbourne, Victoria. Steam railway-brake.....	227,400	May 11	365	108	17	1049
Woods, Joseph W. (See Winslow, Gorham N., assignor.).....						
Woods, Sherwood & Co. (See Dudley and Mansfield, assignors.).....						
Woods, Sherwood & Co. (See Dudley and Sherwood, assignors.).....						
Woods, William H., Elizabeth township, Allegheny county, Pa. Sled for hauling fodder.....	228,967	June 15	984	268	17	1394
Woods, William J., New York, N. Y. Whiffletree-hook.....	229,790	July 6	322	89	18	55
Woods, William L., Washington, D. C. Paper-file.....	228,158	May 25	1249	354	17	1212
Woodward, Arthur T., New York, assignor of one-half interest to S. A. Wood, Brooklyn, N. Y. Plastic compound.....	225,679	Mar. 16	820		17	619
Woodward, Arthur T., New York, assignor of one-half interest to S. A. Wood, Brooklyn, N. Y. Underground-telegraph conductor.....	226,468	Apr. 13	379	106	17	820
Woodward, Calvin M., St. Louis, Mo. Means for heating and ventilating.....	227,709	May 18	720	203	17	1116
Woodward, Erastus. (See Brock and Woodward.).....						
Woodward, Erastus. (See Copeland, Woodward, and Brock.).....						
Woodward, Erastus, and M. Brock, Boston, Mass., assignors to Copeland Lasting Machine Company, Hartford, Conn. Tack-strip.....	226,817	Apr. 20	785	218	17	898
Woodward, Erastus, and M. Brock, Boston, Mass., assignors to Copeland Lasting Machine Company, Hartford, Conn. Tack-strip.....	226,818	Apr. 20	785	218	17	899
Woodward, Erastus, and M. Brock, Boston, Mass., assignors to Copeland Lasting Machine Company, Hartford, Conn. Suspending power pegging-machines.....	227,944	May 25	1004	288	17	1173
Woodward, Erastus, and M. Brock, Boston, Mass. Machine for making tack-strips.....	230,356	July 20	1033	292	18	184
Woodward, Erastus, Boston, assignor to G. W. Copeland, trustee, Malden, Mass. Boot and shoe sewing machine.....	234,513	Nov. 16	849	227	18	1144
Woodward, James M., Ipsley, assignor to J. Smith, Ashwood, England. Needle-wrapper.....	234,514	Nov. 16	850	227	18	1145
Woodward, Orator F., assignor of one-half interest to F. C. Lathrop, Le Roy, N. Y. Composition of matter for making molded articles of manufacture.....	225,261	Mar. 9	324	95	17	526
Woodward, Solon, et al. (See Real, John, assignor.).....						
Woodward, William H. (See Fox, Squire H., assignor.).....						
Wooldridge, Silas H., Venice, Ill. Gang-plow.....	232,867	Oct. 5	85	24	18	753
Wooldridge, Silas H., Venice, Ill. Plow.....	232,868	Oct. 5	86	24	18	753

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Wooley, Douglas. (See Rhind, James W. C., assignor.)						
Woolley, Leonidas G., Mendon, Mich. Electro-magnetic motor.....	231,697	Aug. 31	1274	357	18	479
Woolnough, George, Halberstadt, Prussia. Molding apparatus.....	225,314	Mar. 9	403	117	17	536
Woolnough, George, Halberstadt, Prussia. Making pattern-plates.....	229,294	June 29	1366	375	17	1465
Woolnough, George, assignor to himself and F. Dehne, Halberstadt, Prussia. Pattern- block for molding purposes.....	230,979	Aug. 10	448	{ 128 129 }	18	327
Woolsey, Charles W., Jersey City, N. J. Life-buoy.....	231,742	Aug. 31	1328	374	18	487
Woolsey, Johnston V., Sandusky, Ohio. Hub for vehicle-wheels. (Reissue).....	9,433	Oct. 26	1283	359	18	977
Woolson, Harry H., Montpelier, Vt. Tailor's measuring device.....	225,678	Mar. 16	818	239	17	618
Wooster, William I., Harvard, Ill. Blind-fastener and slat-operator.....	230,096	July 13	671	{ 187 188 }	18	118
Worden, Alva, Ypsilanti, Mich. Cartridge capping and uncapping implement.....	231,250	Aug. 17	770	215	18	385
Workman, Thomas M., and J. H. James, Newberry Court-House, S. C. Automatic car- brake.....	231,136	Aug. 10	620	175	18	355
Workman, William, West De Pere, Wis. Harrow-tooth.....	229,224	June 22	1277	351	17	1445
Worline, Chauncey E., Radnor, Ohio. Plow attachment.....	232,796	Sept. 28	1108	303	18	730
Worman, Andrew D., Frederick, Md. Wind-wheel.....	228,157	May 25	1248	354	17	1211
Wormser & Co., S. (See Fellheimer, August, assignor.)						
Worsley, Samuel L., assignor to Plumb, Burdick & Barnard, Buffalo, N. Y. Machine for threading screws.....	232,869	Oct. 5	87	24, 25	18	753
Wortenbe, Wesley. (See Mell and Wortenbe.)						
Worth, John S., Coatesville, Pa. Gearing.....	232,586	Sept. 21	846	235	18	680
Worham, John B., Winchester, Va. Commode.....	225,089	Mar. 2	132	38	17	479
Worthen, Charles, Amesbury, Mass. Thill-coupling.....	223,792	Jan. 20	699	186	17	141
Worthington, Richard T., Chillicothe, Ohio. Band-cutting feeder for thrashers.....	233,959	Nov. 2	163	42	18	1013
Worthington, Thomas E., assignor of one-half interest to A. J. Ramsdell, New Haven, Conn. Rotary drier.....	230,980	Aug. 10	450	129	18	327
Wotherspoon, John. (See Stewart and Wotherspoon.)						
Wragg, Joseph, et al. (See Bramhall and Blaydes, assignors.)						
Wraight, Thomas E., assignor of one-half interest to A. T. Byers, Springfield, Ohio. Dash- molding.....	224,317	Feb. 10	399	113	17	289
Wren, John. (See Felthousen, Jacob D., assignor.)						
Wren, William C., Brooklyn, N. Y. Steam-heater.....	224,569	Feb. 17	694	198	17	347
Wright, Charles, assignor of one-half interest to Y. Bickham, Findlay, Ohio. Stand-pipe drier for shafts.....	224,756	Feb. 17	897	256	17	382
Wright, Charles, assignor of one-half interest to Y. Bickham, Findlay, Ohio. Machine for bending wooden bows, &c.....	224,757	Feb. 17	898	257	17	382
Wright, Charles, assignor of one-half interest to Y. Bickham, Findlay, Ohio. Felly-bending machine.....	224,758	Feb. 17	899	257	17	383
Wright, Charles, South Elgin, Ill. Whiffletree-hook.....	234,449	Nov. 16	777	208	18	1132
Wright, Charles A. (See Blaisdell and Wright.)						
Wright, Christopher, assignor to Chicago Stamping Company, Chicago, Ill. Sheet-metal joint.....	228,240	June 1	97	29	17	1242
Wright & Co., Edward. (See Wright, John K., assignor.)						
Wright, D. Pratt, Rutherford Park, N. J. Spark-arrester for locomotives.....	228,431	June 1	298	84	17	1274
Wright, Edmund, Birmingham, England. Button and button-fastener.....	232,587	Sept. 21	846	236	18	680
Wright, Edmund, Birmingham, England. Fastener for gloves.....	233,060	Oct. 5	316	87	18	790
Wright, Edward, et al. (See Wright, Jacob D., assignor.)						
Wright, Edward, Beckenham, county of Kent, England. Paint-brush.....	235,841	Dec. 21	958	267	18	1457
Wright, Edwin, Northampton, Great Britain. Winding mechanism for going-barrels.....	232,663	Sept. 28	947	260	18	703
Wright, E. P., et al. (See Lanum, Richard B., assignor.)						
Wright, Gardner V. (See Sowash and Wright.)						
Wright, George J. (See Ellis, Ephraim, assignor.)						
Wright, George M., Philadelphia, Pa., assignor to United States Label, Card, and Tag Com- pany, (limited.) Chromatic-printing machine.....	225,501	Mar. 16	618	179	17	583
Wright, H. C., et al. (See McCabe, Thomas W. R., assignor.)						
Wright, Henry E. and R. Clubb, Stockton, H. D. Nash, and J. Klees, Sacramento, Cal. Grain-separator.....	225,263	Mar. 9	326	95	17	526
Wright, Jacob D., assignor to E. Wright and J. W. Smith, Worcester, Mass. Mechanical movement.....	225,262	Mar. 9	325	95	17	526
Wright, James, Jackson, Tenn., assignor to New Era Cotton Manufacturing Company. } Carding attachment for cotton-gins.....	233,313	Oct. 12	635	{ 175 176 }	18	851
Wright, John A. (See Bowker, Daniel F., assignor.)						
Wright, John A., Keene, N. H. Vent to vessels holding liquids.....	228,159	May 25	1250	355	17	1212
Wright, John K., assignor to E. Wright & Co., Worcester, Mass. Doffer-comb.....	224,980	Feb. 24	1175	336	17	442
Wright, John T., Glasgow, North Britain. Combined piano-forte and organ.....	225,090	Mar. 2	133	39	17	479
Wright, Miles S., assignor of one-half interest to J. D. Merritt, Brooklyn, N. Y. Carbureter.....	226,581	Apr. 13	501	141	17	841
Wright, Parvin, Rock Creek, Wyo. Ter. Traveling hay-press.....	230,100	July 13	674	{ 189 190 }	18	119
Wright, Philemon, Brooklyn, N. Y. Roofing compound.....	230,912	Aug. 10	376	.....	18	315
Wright, Rufus, Brooklyn, N. Y., assignor to G. Bergen. Easel picture-frame. (Reissue).....	9,281	July 6	331	92	18	57
Wright, Samuel M., Wagoner's Station, Ind. Rein-holder.....	227,871	May 18	899	256	17	1145
Wright, Spencer D. (See Foulke, Charles M., assignor.)						
Wright, Thomas J., Dunbarton, Ohio. Carriage.....	227,340	May 4	284	83	17	1024
Wright, Wilbur L. (See Gale and Wright.)						
Wright, William, Akron, N. Y. Side-spring wagon.....	225,779	Mar. 23	954	275	17	650
Wright, William, Newburg, N. Y. Cut-off valve for steam-engines.....	227,144	May 4	70	19	17	989
Wright, William A., Centreton, N. J., assignor to G. R. Fagan, Philadelphia, Pa. Machine for shaving and cutting stereotype and other plates.....	224,755	Feb. 17	896	256	17	382
Wright, William A., Centreton, N. J., assignor to I. R. Kulp, Hatfield, Pa. Hay-press.....	228,503	June 8	411	113	17	1301
Wright, William A., Centreton, N. J., assignor to I. R. Kulp, Hatfield, Pa. Horse-power.....	228,504	June 8	412	113	17	1301
Wright, William A., Centreton, N. J., assignor of two-thirds to J. B. and C. Z. De Young, Philadelphia, Pa. Stub cutter and slicer.....	230,516	July 27	1220	344	18	221
Wright, William A., Centreton, N. J., assignor of two-thirds to J. B. and C. Z. De Young, Philadelphia, Pa. Apparatus for cutting corn-husks.....	234,640	Nov. 16	1019	273	18	1173
Wright, William A., Centreton, N. J., assignor of two-thirds to J. B. and C. Z. De Young, Philadelphia, Pa. Disintegrating corn-husks.....	234,641	Nov. 16	1020	.....	18	1173
Wright, William A., Centreton, N. J., assignor of two-thirds to J. B. and C. Z. De Young, Philadelphia, Pa. Apparatus for slicing or cutting magney plants.....	235,603	Dec. 14	671	190	18	1401
Wright, William H. (See Jackson and Wright.)						
Wright, William H., Belmont, N. H. Stump-extractor.....	227,087	Apr. 27	1135	311	17	964
Wrightson, Thomas, Teesdale Iron Works, England. Center-crane.....	234,160	Nov. 9	408	111	18	1061
Wrigley, Arthur, Liverpool, England. Electrical railway-signal.....	225,961	Mar. 30	1181	{ 335 336 }	17	700
Wroath, John. (See De Grush and Wroath.)						

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Wulff, Rudolph. (See Schultz, Ernst, assignor.)						
Wunderlich, Gennaro, assignor of one-half interest to W. H. Evans, Philadelphia, Pa. Game apparatus	229,791	July 6	323	89	18	55
Wurzner, Joseph, assignor of two-thirds interest to J. Michle and F. Schweinfurth, Chicago, Ill. Automatic fan.	226,144	Mar. 30	1390	392	17	733
Wuth, William A. O., Pittsburg, Pa. Dephosphorizing iron in the puddling process.	226,143	Mar. 30	1389		17	733
Wygant, John H., assignor of one-half interest to W. Cronkright, Hackensack, N. J. Thill-coupling.	226,436	Apr. 13	337	96	17	815
Wygant, John H., assignor of one-half interest to A. A. H. Smith, Hackensack, N. J. Nut-lock.	226,947	Apr. 27	960	266	17	937
Wykoff, John C. (See Lawrence, Wykoff, and Whitaker.)						
Wylie, William N., Black River Falls, Wis. Clothes-slide.	225,202	Mar. 2	249	70	17	500
Wylly, William P., Patterson, Ga. Car-axle box.	234,901	Nov. 30	1354	364	18	1240
Wyman, Charles E., Martinsburg, Ind. Harrow.	231,386	Aug. 17	909	256	18	408
Wyman, Charles H. (See Fortier and Wyman.)						
Wyman, Greenleaf G. (See Craig and Wyman.)						
Wyman, Henry E. (See Scott, De Pontee, and Wyman.)						
Wyman, Horace. (See Crompton and Wyman.)						
Wyman, Horace, Worcester, Mass. Shuttle-box motion for looms.	227,667	May 18	668	{ 190 191 }	17	1109
Wyman, Horace, Worcester, Mass. Loom.	235,975	Dec. 28	1143	317	18	1494
Yahle, Xavier, Newark, N. J. Polishing-wheel.	234,367	Nov. 9	652	177	18	1104
Yakel, Levi, Allegheny, Pa. Differential screw-clamp.	229,069	June 22	1116	303	17	1422
Yale Lock Manufacturing Company. (See Capen, Thomas W., assignor.)						
Yale Lock Manufacturing Company. (See Stockwell, Emory, assignor.)						
Yale Lock Manufacturing Company. (See Stockwell and Taylor, assignors.)						
Yale Lock Manufacturing Company. (See Taylor, Warren H., assignor.)						
Yates, Edward D., Philadelphia, Pa. Apparatus for pumping oil-wells.	226,948	Apr. 27	961	{ 266 267 }	17	937
Yates, Henry G., New York, N. Y. Horseshoe.	235,604	Dec. 14	672	190	18	1401
Yates, John H., Sharon, Wis. Nasal inhaler.	223,793	Jan. 20	700	189	17	141
Yates, Joseph, Mott Haven, N. Y. Electro-deposition of nickel.	224,263	Feb. 3	324		17	257
Yates, Wharton, & Co. (See Clark, Robert, Jr., assignor.)						
Yaxley, William H., Kirtland, Ohio. Folding packing-case.	234,450	Nov. 16	777	{ 208 209 }	18	1132
Yeagley, Jacob B., Indianapolis, Ind. Sash-holder.	226,147	Mar. 30	1392	393	17	733
Yellott, George, Towson, Md. Hydraulic ram and water-wheel.	234,368	Nov. 9	653	{ 177 178 }	18	1104
Yeoman, William P., Waukegan, Ill. Machine for trimming paper.	232,221	Sept. 14	412	114	18	600
Yerdon, William, Fort Plain, N. Y. Bag-holder.	224,318	Feb. 10	400	113	17	289
Yerkes, Jonathan, assignor to himself and F. R. Plumb, Philadelphia, Pa. Manufacture of hammers and hatchets.	235,326	Dec. 7	309	87	18	1332
Yoch, Benhard, West Belleville, Ill., assignor, by mesne assignments, to C. Cooper, G. Rogers, F. L. Fairchild, and C. G. Cooper. Portable and road engine. (Reissue.)	9,052	Jan. 20	710	191	17	143
Yokom, Wilford W., Parkersburg, Iowa. Door-spring.	234,832	Nov. 23	1264	340	18	1219
York, James, Colesburg, Mo. Hoof-parer.	228,160	May 25	1251	355	17	1212
Yost, George W. N. (See Wagner, Franz, assignor.)						
Young, Albert. (See Flynt and Young.)						
Young, Albert A., Boston, Mass. Life-preserving mattress.	236,135	Dec. 28	1337	366	18	1526
Young, Charles, assignor to A. G. Mack, Chicago, Ill. Crocheting-machine for making looped fabrics. (Reissue.)	9,447	Nov. 2	351	96, 97	18	1046
Young, Charles H., River Point, R. I. Railway-gate.	230,162	July 20	769	{ 214 215 }	18	142
Young, Charles M., Corry, Pa. Mower.	223,572	Jan. 13	448	121	17	91
Young, Corinne, New York, N. Y. Corset.	235,112	Dec. 7	58	17, 18	18	1290
Young, George W. (See Noonan and Young.)						
Young, Hugh, New York, N. Y. Machine for sawing stone.	224,760	Feb. 17	901	258	17	383
Young, Hugh, New York, N. Y. Combined crank and wheel for machinery.	225,454	Mar. 9	554	160	17	502
Young, James, Kenton, Ohio. Iron gate.	235,113	Dec. 7	59	18	18	1290
Young, James E., Genoa, N. Y. Calendar-clock.	235,605	Dec. 14	673	{ 190 191 }	18	1401
Young, James F., Brooklyn, N. Y. Candle-holder for Christmas-trees.	227,088	Apr. 27	1136	311	17	964
Young, John. (See Scott, George, assignor.)						
Young, John N. (See Nelson and Young.)						
Young, Leonard, Sing Sing, assignor of one-half interest to N. Lyon, Albany, N. Y. Tool-holder for grindstones.	228,849	June 15	861	235	17	1377
Young, Lewis A., Stanstead, Quebec, Canada, assignor to F. D. Butterfield, Derby Line, Vt. Device for cutting axles.	231,387	Aug. 17	910	256	18	408
Young, McClintock, Frederick, Md. Art of and machinery for making paper tubes.	229,296	June 29	1368	{ 376 377 }	17	1466
Young, Richard, Brooklyn, N. Y. Combined creasing and embossing tool.	224,759	Feb. 17	900	258	17	383
Young, Sarah G., Hartford, Conn. Sofa-bed.	229,225	June 22	1278	351	17	1445
Young, Thomas B., assignor of one-half interest to J. C. Jonson, Calhoun, Ky. Welt-guide for sewing-machines.	231,465	Aug. 24	1001	281	18	430
Young, Wesley. (See Kirkbride, David M., assignor.) (Reissue.)						
Young, William, Washington, D. C. Cooking-range.	233,653	Oct. 26	1080	{ 300 301 }	18	941
Young, William A., Jacksonville, Fla. Dredging apparatus.	235,190	Dec. 7	152	43	18	1307
Young, William G. (See Reynolds, Christopher C., assignor.)						
Young, William H., Palmyra, N. Y. Fertilizing attachment for grain-drills.	226,469	Apr. 13	373	106	17	821
Young, William H., Buffalo, N. Y. Artificial stone and marble.	233,960	Nov. 2	164		18	1013
Youngblood, William O., Cedar Springs, Mich. Stump-puller.	235,842	Dec. 21	955	267	18	1457
Youngblood, Wilson, and T. J. Holmes, New Orleans, La. Boiler-scale collector.	227,605	May 11	596	170	17	1087
Younkin, Alexander C. (See Smith and Younkin.)						
Yource, Silas M., Bradyville, Tenn., assignor of three-fourths interest to J. N. Patton, W. H. Yource, and F. Y. Beavers. Remedy for hog-cholera.	231,137	Aug. 10	621		18	355
Yource, W. H., et al. (See Yource, Silas M., assignor.)						
Yucngling, David G., Jr. (See Dobbelaar, Lawrence, assignor.)						
Yule, George, Newark, N. J. Hat-felting machine.	230,101	July 13	677	190	18	119
Yunck, Frederick. (See Smith, Samuel S., assignor.)						
Zanetti, Fortunato C., Bryan, Tex. Game apparatus.	226,145	Mar. 30	1391	392	17	733
Zapp, William W. (See Stratton and Steuerwald, assignors.)						
Zearing, Robert M. (See Klinefline, John W., assignor.)						
Zeck, Michael, Pittsburg, assignor of one-fourth interest to W. L. Fox, Foxburg, Pa. Spark-arrester.	223,427	Jan. 6	245	65	17	45

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Zeckefoose, Joseph L. (See Warren, Haddock L., assignor.)						
Zeigler, George W., Clinton, Mich. Treadle-power machine.....	228,432	June 1	298	84	17	1274
Zeigler, George W., Tecumseh, Mich. Mechanism for operating sewing-machines.....	232,622	Sept. 28	899	248	18	695
Zeigler, George W., Tecumseh, Mich. Mechanism for operating sewing-machines.....	232,623	Sept. 28	900	248	18	695
Zeigler, George W., Tecumseh, Mich. Mechanism for operating sewing-machines.....	232,624	Sept. 28	901	248	18	695
Zeimet, Michael J., and H. C. Brand, Sheboygan, Wis. Spring-seat for vehicles.....	232,098	Sept. 7	262	72	18	567
Zell, Martin R. (See Reese and Zell.)						
Zeller, John P., Rock Island, Ill. Chill for mold-boards.....	235,327	Dec. 7	310	87	18	1333
Zeller, Thomas B., Kossuth, Pa. Velocipede.....	233,903	Nov. 2	86	22	18	1002
Zellner, William, Paterson, N. J., assignor to Consolidated Safety Valve Company, Boston, Mass. Noise-quieting steam-nozzle.....	227,341	May 4	285	83	17	1025
Zellweger, John, Louisville, Ky. Jet blower or exhauster.....	223,830	Jan. 27	765	204	17	162
Zerbe, Edward M., Lewistown, Pa. Hydrant.....	229,933	July 13	495	138	18	90
Zerbe, James S., Cincinnati, Ohio. Clothes-sprinkler.....	233,130	Oct. 12	418	115	18	813
Zeyen, Leopold, Raguhn, Anhalt, Germany. Pulp-strainer.....	226,819	Apr. 20	786	219	17	899
Zeyen, Leopold, Raguhn, Germany. Pulp-strainer.....	235,976	Dec. 28	1145	317	18	1495
Ziegler, Charles W., Providence, Pa. Alarm-lock.....	233,172	Oct. 12	465	128	18	822
Ziegler, George, Boston, Mass. Doup-heddle for looms.....	228,580	June 8	507	136	17	1315
Ziegler, Gottlieb, Paris, Ohio. Cider-press.....	223,972	Jan. 27	935	250	17	189
Zilker, Andrew J., Austin, Tex. Apparatus for the manufacture of ice.....	225,037	Mar. 2	71	20	17	468
Zilker, Andrew J., Austin, Tex. Apparatus for the manufacture of ice.....	230,102	July 13	679	191	18	120
Zimmer, Louis, Pittsburg, Pa. Carpet and oil-cloth stretcher.....	232,099	Sept. 7	263	72	18	567
Zimmerer, Anton, Nebraska City, Nebr. Hay-knife.....	226,146	Mar. 30	1392	392	17	733
Zimmerman, Arnold W., Chicago, Ill. Car-door bolt.....	228,241	June 1	98	29	17	1242
Zimmerman, George, assignor to himself and R. J. Beatty, Steubenville, Ohio. Glass-house pot.....	233,904	Nov. 2	87	23	18	1001
Zimmerman, Henry M., and T. N. Clute, Washington, D. C. Combined foot-rest and boot-jack.....	228,581	June 8	508	136	17	1316
Zimmerman, William, and J. B. Waterston, Chicago, Ill., assignors to said Zimmerman. Book-binder's gold-brushing machine.....	235,328	Dec. 7	311	88	18	1333
Zimmermann, Philip, assignor of one-half interest to A. L. J. Herancourt, Cincinnati, Ohio. Apparatus for making distillers' and brewers' mash.....	230,517	July 27	1221	344	18	222
Zinsser, August, New York, N. Y. Press mechanism for expressing liquids from fruits and other materials.....	235,114	Dec. 7	60	18	18	1291
Zinsser & Co., William. (See Mussgiller and Schedler, assignors.) (Reissue.)						
Zirngiebel, Reinhold. (See Preuss, Carl, assignor.)						
Zogbaum, Ferdinand, New York, N. Y. Accordion.....	223,461	Jan. 13	313	83, 84	17	68
Zoller, Albert, New York, N. Y. Vent-plug for barrels, &c.....	232,797	Sept. 28	1108	303	18	730
Zonne, John P., Sheboygan Falls, Wis. Harness-saddle.....	224,503	Feb. 10	604	175	17	322
Zschech, Gustavus H., Indianapolis, Ind. Water heater and purifier.....	232,222	Sept. 14	413	115	18	600
Znrburg, Frederick W., Chicago, Ill. Sled.....	231,746	Aug. 31	1334	375	18	488
Zwiebel, Anton, Burlington, Wis. Folding ironing-table.....	232,100	Sept. 7	263	73	18	567
Zwietusch, Otto, Milwaukee, Wis. Vent-hung.....	225,906	Mar. 23	1088	311	17	672
Zwietusch, Otto, Milwaukee, Wis. Vent for beer-barrels.....	228,292	June 1	161	44	17	1252
Zwietusch, Otto, Milwaukee, Wis. Preserving the flavor of fermented liquors, &c.....	229,934	July 13	497	138	18	90





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Adams, J. McGregor, Chicago, Ill. Torch.....	11,616	Jan. 27	17	154
Aikin, James C., New York, N. Y. Barrels for pen and pencil cases.....	11,737	Apr. 13	17	804
Aikin, James C., New York, N. Y. Barrel of a pencil-case.....	11,806	June 8	17	1287
Allen, Frederick D., assignor to Allen, Lane & Co., Boston, Mass. Horse-blanket.....	12,060	Dec. 14	18	1343
Allen, Lane & Co. (See Allen, Frederick D., assignor.)				
Almy, George W., et al. (See Chase, William D., assignor.)				
Almy, George W., et al. (See Havell, George, assignor.)				
Almy, Harvey S., et al. (See Chase, William D., assignor.)				
Almy, Harvey S., et al. (See Havell, George, assignor.)				
Anderson, Joseph, Pittsburg, Pa. Stem of glass articles.....	11,838	July 6	18	1
Appleton, Samuel, Bristol, Pa. Knitted fabrics.....	11,738	Apr. 20	17	855
Archer, George W., Rochester, N. Y., and G. W. Lyon, Chicago, Ill. Piano-stool.....	12,071	Dec. 21	18	1409
Back, Albert, New York, N. Y. Ladies' neckwear.....	12,015	Nov. 9	18	1051
Baggs, Andrew H., assignor to La Belle Glass Company, Bridgeport, Ohio. Glassware.....	12,006	Nov. 2	18	985
Bailey, Alonzo B., and H. Brainard, Cobalt, Conn. Coffin-handle.....	11,722	Apr. 13	17	803
Bailey, Francis S. (See Nortemann, Ernest F., assignor.)				
Bailey, George G., Jr., and J. Gilbert, Boston, Mass. Font of printing-type.....	11,757	May 4	17	978
Bainbridge, Henry C., Brooklyn, N. Y. Envelopes.....	11,686	Mar. 16	17	573
Barkentin, George S., assignor to P. & F. Corbin, New Britain, Conn. Key-bow.....	11,794	June 1	17	1226
Barkentin, George S., assignor to P. & F. Corbin, New Britain, Conn. Knob-rose.....	11,963	Sept. 14	18	575
Barkentin, George S., assignor to P. & F. Corbin, New Britain, Conn. Key-bow.....	12,050	Dec. 7	18	1279
Barkentin, George S., assignor to P. & F. Corbin, New Britain, Conn. Key-bow.....	12,051	Dec. 7	18	1280
Barkentin, George S., assignor to P. & F. Corbin, New Britain, Conn. Key-bow.....	12,059	Dec. 7	18	1280
Barkentin, George S., assignor to P. & F. Corbin, New Britain, Conn. Key-bow.....	12,077	Dec. 28	18	1467
Barnhart, Alton E., et al. (See Heyer, Charles E., assignor.)				
Barnhart, Arthur M., et al. (See Heyer, Charles E., assignor.)				
Barrett, Joseph, New York, N. Y., assignor to Roxbury Carpet Company, Boston, Mass. Carpet...	11,982	Oct. 26	18	957
Barrett, Joseph, New York, N. Y., assignor to W. Morris. Floor oil-cloth.....	12,063	Dec. 21	18	1409
Bascom, H. Clay, Troy, and T. S. Heister, Lansingburg, N. Y., assignors to O. G. Clark and D. D. Bucklin, executors of N. S. Vedder, deceased. Globe-stove.....	11,878	July 20	18	134
Bascom, H. Clay, Troy, and T. S. Heister, Lansingburg, N. Y., assignors to O. G. Clark and D. D. Bucklin, executors of N. S. Vedder, deceased. Cooking-stove.....	11,879	July 20	18	134
Bascom, H. Clay, Troy, and T. S. Heister, Lansingburg, N. Y., assignors to O. G. Clark and D. D. Bucklin, executors of N. S. Vedder, deceased. Cooking-stove.....	11,885	July 20	18	134
Bascom, H. Clay, Troy, and T. S. Heister, Lansingburg, assignors to N. S. Vedder Pattern Works, Galbraith & Co., Troy, N. Y. Stove.....	12,078	Dec. 28	18	1467
Bates, George G., New York, N. Y. Ruches.....	11,650	Feb. 10	17	277
Bayley, William, Milwaukee, Wis. Vase and pedestal.....	11,677	Mar. 9	17	513
Beam, Daniel A., assignor to Wheeler, Parsons & Hayes, Newark, N. J. Ornamental chain-link.....	11,824	June 15	17	1353
Bean, Charles E., Fall River, Mass. Knit fabric.....	11,976	Oct. 12	18	797
Beattie, William C., assignor to Reed & Barton, Taunton, Mass. Fork and spoon handle.....	11,680	Mar. 16	17	573
Beatty, Robert J., Stenbenville, Ohio. Glass tumblers, mugs, &c.....	11,653	Feb. 17	17	333
Beecher, Henry M., New Haven, Conn. Carriage-step pad.....	12,079	Dec. 28	18	1467
Bellamy, Charles L., Arlington, N. J. Padlock-case.....	11,763	May 4	17	978
Bellamy, Charles L., Arlington, N. J. Polishing-head.....	12,000	Oct. 26	18	957
Benjamin, Hiram D., De Ruyter, N. Y. Wood-moldings.....	11,785	May 18	17	1097
Berbecker, Julius, New York, N. Y. Curtain-pole.....	11,708	Mar. 30	17	687
Bigelow Carpet Company. (See Christie, Hugh, assignor.)				
Bigelow Carpet Company. (See Magee, Charles, assignor.)				
Bigelow Carpet Company. (See Neil, John, assignor.)				
Bigelow Carpet Company. (See Neil, John B., assignor.)				
Bigelow Carpet Company. (See Tétrel, Prosper, assignor.)				
Bixler, Elizabeth A., San Francisco, Cal. Tea-urn.....	11,964	Sept. 14	18	575
Bliss, Egerton A., Jersey City Heights, N. J. Lace-pin.....	11,692	Mar. 23	17	630
Bliss, Egerton A., New York, N. Y. Watch-chain.....	11,825	June 22	17	1405
Bliss, Egerton A., New York, N. Y. Watch-chain hook.....	11,858	July 13	18	65
Boston and Sandwich Glass Company. (See Roby, William H., assignor.)				
Bourn, Augustus O., Bristol, R. I. Rubber door-mat.....	11,972	Sept. 28	18	687
Bowen, James H., Philadelphia, Pa. Toy money-box.....	11,967	Sept. 21	18	627
Bradley & Hubbard Manufacturing Company. (See Seidensticker, Fred. R., assignor.)				
Bradley & Hubbard Manufacturing Company. (See Seidensticker, F. Robert, assignor.)				
Brainard, Harrison. (See Bailey and Brainard.)				
Bray, Morris P., New Haven, Conn. Corscet.....	12,040	Nov. 30	18	1227
Brice, Norman R. (See Lewis and Brice.)				
Brittin, Edwin L. (See Gill and Brittin.)				
Brocksieper, Fredrick W., assignor to Sargent & Co., New Haven, Conn. Coffin-handle socket.....	11,807	June 8	17	1237
Brown, Simon T., Chicago, Ill. Neckscarf.....	11,973	Oct. 5	18	737
Brown & Brothers. (See White, Le Roy S., assignor.)				
Bruce, David W. (See Herriet, Julius, assignor.)				
Bruce, David W. (See Will, August, assignor.)				
Bruschke, Charles J., et al. (See Rich, George W., assignor.)				
Buckingham, Edward L., Jefferson, Wis. Chair.....	11,830	July 6	18	1
Bucklin, Daniel D., et al., executors. (See Bascom and Heister, assignors.)				
Bucklin, Daniel D., et al., executors. (See Heister, Tobias S., assignor.)				
Bucklin, Daniel D., et al., executors. (See Hodges, Cyrus A., assignor.)				
Bucklin, Daniel D., et al., executors. (See Vedder and Heister, assignors.)				
Buermann, August, Newark, N. J. Spurs.....	11,715	Mar. 30	17	688

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Busteed, Richard, Brooklyn, N. Y. Monument of Egyptian obelisk.....	11,755	Apr. 27	17	912
Button, Conyers, <i>et al.</i> (See Upton, Gabriel, assignor.)				
Caldwell, Edward P., assignor to H. C. Wilkinson and A. E. Smythe, Philadelphia, Pa. Magneto-galvanic medal-battery.....	11,637	Feb. 3	17	202
Cary, Spencer C., assignor to W. H. Cary, Brooklyn, N. Y. Clothes-hook.....	11,889	July 27	18	195
Cary, William H. (See Cary, Spencer C., assignor.)				
Case, Clayton H., Hartford, Conn., and W. Riker, Clinton township, Essex county, N. J.; said Riker assignor to said Case. Military scarf-pin.....	11,820	June 15	17	1353
Chase, William D., <i>et al.</i> (See Havell, George, assignor.)				
Chase, William D., assignor to himself and G. W. Almy, Brooklyn, and H. S. Almy, New York, N. Y. Clock-case.....	11,717	Apr. 6	17	745
Christesen, Rodolphe, Hartford, assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Hinge.....	11,606	Jan. 13	17	62
Christesen, Rodolphe, assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Door-escutcheons.....	11,620	Feb. 3	17	202
Christesen, Rodolphe, assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Hinge.....	11,758	May 4	17	978
Christesen, Rodolphe, assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Chandelier-hook.....	11,808 } 11,809 }	June 8	17	1287
Christesen, Rodolphe, assignor to Russell & Erwin Manufacturing Company, New Britain, Conn. Stand for fire-irons, &c.....	12,041	Nov. 30	18	1227
Christie, Hugh, Melrose, N. Y., assignor to Bigelow Carpet Company, Clinton, Mass. Carpet.....	11,859	July 13	18	65
Christie, Hugh, Melrose, N. Y., assignor to Bigelow Carpet Company, Clinton, Mass. Carpet.....	11,869	July 13	18	65
Clark, Charles B., Detroit, Mich. Hinge.....	11,871	July 20	18	133
Clark, Otis G., <i>et al.</i> , executors. (See Bascom and Heister, assignors.)				
Clark, Otis G., <i>et al.</i> , executors. (See Heister, Tobias S., assignor.)				
Clark, Otis G., <i>et al.</i> , executors. (See Hodges, Cyrus A., assignor.)				
Clark, Otis G., <i>et al.</i> , executors. (See Vedder and Heister, assignors.)				
Collins, John, Highlandville, Mass. Knitted mitten.....	12,064	Dec. 21	18	1409
Condé, Swits, Oswego, N. Y. Knit drawers.....	11,636	Feb. 3	17	202
Condé, Swits, Oswego, N. Y. Knit fabric.....	11,669 } 11,670 }	Mar. 9	17	513
Condé, Swits, Oswego, N. Y. Knit shirts.....	11,740	Apr. 20	17	855
Condé, Swits, Oswego, N. Y. Knit drawers.....	11,741	Apr. 20	17	855
Conner, James M., New York, N. Y. Font of printing-type.....	11,642	Feb. 3	17	202
Conner's Sons, James. (See Herriet, Julius, assignor.)				
Corbin, P. & F. (See Barkentin, George S., assignor.)				
Court, Charles H., assignor of one-half interest to J. C. Haring, Jersey City, N. J. Pencil-case.....	11,693	Mar. 23	17	630
Crandall, William E., New York, N. Y. Ten-pin.....	12,016	Nov. 9	18	1051
Crane, Breed & Co. (See McComas, William R., assignor.)				
Crease, Orlando, <i>et al.</i> (See Heald, Alfred, assignor.)				
Crossette, Charles H., Chicago, Ill. Neckscarf.....	11,739	Apr. 20	17	855
Cuppers, Emil A., assignor to Sargent & Co., New Haven, Conn. Coffin-screw.....	11,786	May 25	17	1159
Cuppers, Emil A., assignor to Sargent & Co., New Haven, Conn. Coffin-handle socket.....	11,810	June 8	17	1287
Cuppers, Emil A., assignor to Sargent & Co., New Haven, Conn. Coffin-screw.....	12,033	Nov. 16	18	1117
Davenport, Henry, Philadelphia, Pa. Gimp.....	12,052	Dec. 7	18	1279
Davies, Henry J., Brooklyn, N. Y. Jewel-case and clock.....	11,746	Apr. 27	17	911
Davies, Henry J., Brooklyn, N. Y. Pedestal and front of clock-cases.....	11,902	Aug. 3	18	245
Davies, Henry J., Brooklyn, N. Y. Clock-stand.....	12,065	Dec. 21	18	1409
Davis, Theodore R., Asbury Park, N. J. Dishes for game course of table-service.....	11,932	Aug. 10	18	303
Davis, Theodore R., Asbury Park, N. J. Dishes for soup course of table-service.....	11,933	Aug. 10	18	303
Davis, Theodore R., Asbury Park, N. J. Dessert-set of plates for table-service.....	11,934	Aug. 10	18	303
Davis, Theodore R., Asbury Park, N. J. Dishes for fish course of table-service.....	11,935	Aug. 10	18	303
Davis, Theodore R., Asbury Park, N. J. Dishes for dinner-set of table-service.....	11,936	Aug. 10	18	303
Davis, William C., Cincinnati, Ohio. Stove.....	11,747 } 11,748 }	Apr. 27	17	911
Detroit Stove Works. (See Dwyer, James, assignor.)				
De Young, Charles Z., Philadelphia, Pa. Ornamental pin.....	11,766	May 11	17	1037
De Young, Charles Z., Philadelphia, Pa. Ring.....	11,767	May 11	17	1037
Dimier, Francis, New York, N. Y. Jewelry pendants.....	11,716	Mar. 30	17	688
Donovan, Edmund W., Detroit, Mich. Mementoes for perpetuating the memory of deceased friends and relatives.....	11,756	Apr. 27	17	912
Dougherty, Andrew, <i>et al.</i> (See Manning, Alfred J., assignor.)				
Downes, Charles H., Jersey City, N. J. Pencil-case.....	11,764	May 4	17	978
Dreyfus, Bernhard, New York, N. Y. Curtain-band.....	12,066	Dec. 21	18	1409
Durgin, William B., Concord, N. H. Spoon and fork handle.....	11,655	Feb. 17	17	334
Dwyer, James, Detroit, Mich., assignor to Detroit Stove Works. Stove-urn.....	11,952	Aug. 17	18	362
Eagle Lock Company. (See Mix, Frank W., assignor.)				
Eble, Ernest F., New York, N. Y. Fan.....	11,776 } 11,777 }	May 18	17	1097
Eddy, James M. (See Eddy, Reynolds, Langdon, and Eddy.)				
Eddy, Walden, A. Reynolds, N. S. Langdon, and J. M. Eddy, Greenwich, N. Y. Horse-block.....	11,709	Mar. 30	17	688
Ensign, Charles A., assignor to Goodyear Metallic Rubber Shoe Company, Naugatuck, Conn. Over-shoe.....	11,638	Feb. 3	17	202
Ensign, Charles A., assignor to Goodyear Metallic Rubber Shoe Company, Naugatuck, Conn. Over-shoe.....	11,821	June 15	17	1353
Estey & Co., J. (See Wagner, Albert, assignor.)				
Fairchild, Le Roy W., New York, N. Y. Pencil-case.....	11,795	June 1	17	1226
Fairchild, Le Roy W., New York, N. Y. Pencil-case.....	12,001	Oct. 26	18	957
Farmer, George P., New York, N. Y. Button-cards.....	11,671	Mar. 9	17	513
Felton, Frederic L., Boston, Mass. Combined calendar and paper-weight.....	11,937	Aug. 10	18	304
Fennell, Hattie L., Kewville, Mich. Cooking-stove.....	12,034	Nov. 16	18	1117
Fisher, Edwin, New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet.....	11,569 } to } 11,574 }	Jan. 13	17	62
Fisher, Edwin, New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpeting.....	11,623 } to } 11,625 }	Feb. 3	17	202
Fisher, Edwin, New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpeting.....	11,631	Feb. 3	17	202
Fisher, Edwin, New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpeting.....	11,903 } 11,904 }	Aug. 3	18	245
Fisher, Edwin, New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpeting.....	11,921 } 11,922 }	Aug. 3	18	245

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Name, residence, and design.	No.	Date.	Official Gazette.	
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Fisher, John, New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet	{ 11,575 to 11,579 }	Jan. 13	17	62
Fisher, John, New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpeting	{ 11,616 to 11,630 }	Feb. 3	17	202
Fisher, John, New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpeting	11,905	Aug. 3	18	245
Fisher, John, New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpeting	11,923	Aug. 3	18	245
Fisk, Clark & Flagg. (See Flagg, Thomas J., assignor.)				
Flagg, Thomas J., assignor to Fisk, Clark & Flagg, New York, N. Y. Neckscarf	{ 11,780 to 11,784 }	May 18	17	1097
Flanigan, James R., Boston, Mass. Medal-batteries	11,656	Feb. 24	17	402
Fleu, Theodore A., et al. (See Upton, Gabriel, assignor.)				
Forrester, John, New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpeting	{ 11,701 to 11,703 }	Mar. 23	17	630
Forrester, John, New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpeting	11,787	May 25	17	1159
Frary, James D., Bridgeport, Conn. Pocket-knife handle	{ 11,749 to 11,750 }	Apr. 27	17	911
French, Evelyn E., New York, N. Y. Sewing-machine case	11,999	Oct. 26	18	957
Furniss, Albert, West Meriden, assignor to M. H. Kinsley, Wallingford, Conn. Spoon-handle	11,661	Mar. 2	17	455
Gadsby, Walter J., assignor to Roxbury Carpet Company, Boston, Mass. Carpet	11,633	Feb. 3	17	202
Gadsby, Walter J., assignor to Roxbury Carpet Company, Boston, Mass. Carpet	{ 11,662 to 11,663 }	Mar. 2	17	455
Gadsby, Walter J., assignor to Roxbury Carpet Company, Boston, Mass. Carpet	11,681	Mar. 16	17	573
Gadsby, Walter J., assignor to Roxbury Carpet Company, Boston, Mass. Carpet	11,775	May 11	17	1037
Gadsby, Walter J., assignor to Roxbury Carpet Company, Boston, Mass. Carpet	11,983	Oct. 26	18	957
Gadsby, Walter J., assignor to Roxbury Carpet Company, Boston, Mass. Carpet	12,067	Dec. 21	18	1409
Genee, Edward, Cleveland, Ohio. Sewing-machine case	11,969	Sept. 28	18	687
Gerow, Joseph U., Brooklyn, N. Y. Pen and pencil case	11,953	Aug. 24	18	415
Gilbert, James. (See Bailey and Gilbert.)				
Gill, George, Stratford, and E. L. Brittin, Derby, assignors to Rogers & Brittin Silver Company, Bridgeport, Conn. Spoon and fork handle	11,778	May 18	17	1097
Gill, George, Stratford, assignor to Rogers & Brittin Silver Company, Bridgeport, Conn. Spoon and fork handle	11,892	June 15	17	1353
Gill, George, Stratford, and E. L. Brittin, Derby, assignors to Rogers & Brittin Silver Company, Bridgeport, Conn. Spoon and fork handle	11,966	Sept. 21	18	627
Goodyear's Metallic Rubber Shoe Company. (See Ensign, Charles A., assignor.)				
Gorham Manufacturing Company. (See Wilkinson, George, assignor.)				
Graham, John, New York, N. Y. Gimp	11,727	Apr. 13	17	803
Graham, John C., Philadelphia, Pa. Gimp	{ 11,958 to 11,960 }	Aug. 31	18	467
Gravelly, Peyton B., and R. W. Lawson, Danville, Va. Plug-tobacco	11,892	July 27	18	195
Green, Fred W., New York, N. Y., assignor to Lowell Manufacturing Company, Lowell, Mass. Carpeting	11,704	Mar. 23	17	630
Grimshaw, John, Paterson, N. J. Handkerchief	{ 11,723 to 11,726 }	Apr. 13	17	803
Grimshaw, John, Paterson, N. J. Handkerchief	11,751	Apr. 27	17	911
Griswold, Lewis F., Meriden, Conn. Spoon and fork	11,956	Aug. 24	18	415
Griswold, Lewis F., assignor to Charles Parker Company, Meriden, Conn. Spoon and fork	11,961	Aug. 31	18	467
Grosjean, Charles T., Green Point, assignor to Tiffany & Co., New York, N. Y. Spoon or fork handles	11,728	Apr. 13	17	803
Grosjean, Charles T., Green Point, assignor to Tiffany & Co., New York, N. Y. Spoon and fork handle	11,968	Sept. 21	18	627
Hagerty, Michael H., New York, N. Y. Fountain-bottle	11,868	July 13	18	65
Hake, Philipp, Hoboken, N. J. Visiting-card	11,604	Jan. 13	17	62
Hale & Mulford. (See Hein, Charles, assignor.)				
Hanifen, John E., Philadelphia, Pa. Stocking fabric	11,682	Mar. 16	17	573
Hanifen, John E., Philadelphia, Pa. Stocking fabric	11,690	Mar. 16	17	574
Hanifen, John E., Philadelphia, Pa. Ornamental stocking fabric	11,729	Apr. 13	17	803
Hanifen, John E., Philadelphia, Pa. Ornamental stocking fabric	11,753	Apr. 27	17	911
Haring, John C. (See Court, Charles H., assignor.)				
Harmon, Orville S., Brooklyn, N. Y., assignor to P. Lorillard & Co., Jersey City, N. J. Tobacco-cutter	12,073	Dec. 21	18	1409
Hart, Albert, assignor to W. Rogers Manufacturing Company, Hartford, Conn. Spoon or fork handle	11,614	Jan. 20	17	112
Hartford Carpet Company. (See Horan, Henry, assignor.)				
Hartford Carpet Company. (See Hunt, Henry, assignor.)				
Hartford Carpet Company. (See Jacobs, Winthrop L., assignor.)				
Hartford Carpet Company. (See Piggott, George W., assignor.)				
Hartje, George, New York, N. Y. Jewelry	12,075	Dec. 21	18	1409
Havell, George, Newark, N. J., assignor to H. S. Almy, New York, G. W. Almy and W. D. Chase, Brooklyn, N. Y. Clock-case	11,730	Apr. 13	17	803
Hayden, Peter, New York, N. Y. Buckle	11,640	Feb. 3	17	202
Hayden, William B., Columbus, Ohio. Harness-buckle	11,826	June 22	17	1405
Heald, Alfred, assignor to H. McCallum, O. Crease, and A. J. Sloan, Philadelphia, Pa. Carpet	{ 11,605 to 11,610 }	Jan. 20	17	112
Healey, James I., Brooklyn, N. Y. Newel-post	11,736	Apr. 13	17	804
Hein, Charles, Carona, assignor to Hale & Mulford, New York, N. Y. Bracelet	11,779	May 18	17	1097
Heister, Tobias S. (See Bascom and Heister.)				
Heister, Tobias S. (See Hodges and Heister.)				
Heister, Tobias S. (See Vedder and Heister.)				
Heister, Tobias S., Lansingburg, N. Y., assignor to O. G. Clark and D. D. Bucklin, executors of N. S. Vedder, deceased. Elevated-oven cooking-stove	11,874	July 20	18	133
Heiter, Simon, and S. J. Lesem, New York, N. Y. Umbrella-handle	{ 11,687 to 11,688 }	Mar. 16	17	573



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Heiter, Simon, and S. J. Lesem, New York, N. Y. Umbrella-handle.....	{ 11,694 to 11,696 }	Mar. 23	17	630
Heiter, Simon, and S. J. Lesem, New York, N. Y. Umbrella-handle.....	11,698	Mar. 23	17	630
Herriet, Julius, assignor to J. Conner's Sons, New York, N. Y. Font of printing-type.....	11,830	June 29	17	1453
Herriet, Julius, assignor to D. W. Bruce, New York, N. Y. Font of printing-type.....	12,003	Oct. 26	18	957
Hewitson, John, assignor to Reed & Barton, Taunton, Mass. Ornamenting metal surfaces.....	11,658	Feb. 24	17	402
Heyer, Charles E., Chicago, Ill. Font of printing-type.....	11,768	May 11	17	1037
Heyer, Charles E., Chicago, Ill., assignor to A. M. and A. E. Barnhart, C. E. Spindler, and S. G. Stein. Font of printing-type.....	11,643	Feb. 3	17	202
Hires, Charles E., Philadelphia, Pa. Apparatus for dispensing aerated liquids.....	11,699	Mar. 23	17	630
Hodges, Cyrus A., Troy, N. Y., assignor to O. G. Clark and D. D. Bucklin, executors of N. S. Vedder, deceased. Box-stove.....	11,873	July 20	18	133
Hodges, Cyrus A., Troy, and T. S. Heister, Lansingburg, N. Y., assignors to O. G. Clark and D. D. Bucklin, executors of N. S. Vedder, deceased. Elevated-oven cooking-stove.....	11,888	July 27	18	195
Horan, Henry, East Orange, N. J. Carpet.....	11,674	Mar. 9	17	513
Horan, Henry, East Orange, N. J., assignor to Hartford Carpet Company, Hartford, Conn. Carpet.....	11,710	Mar. 30	17	688
Horan, Henry, East Orange, N. J., assignor to Hartford Carpet Company, Hartford, Conn. Carpet.....	11,831	June 29	17	1453
Horan, Henry, East Orange, N. J., assignor to Hartford Carpet Company, Hartford, Conn. Carpet.....	11,840	July 6	18	1
Horan, Henry, East Orange, N. J., assignor to Hartford Carpet Company, Hartford, Conn. Carpet.....	{ 11,860 to 11,861 }	July 13	18	65
Horan, Henry, East Orange, N. J., assignor to Hartford Carpet Company, Hartford, Conn. Carpet.....	12,042	Nov. 30	18	1227
Horn, Frederick W., Brooklyn, N. Y. Book-clasps.....	11,788	May 25	17	1159
Hull, James D., assignor of one-fourth interest to Pratt & Letchworth, Buffalo, N. Y. Cockeye-clip.....	11,827	June 22	17	1405
Hunt, Henry, Jersey City, N. J., assignor to Hartford Carpet Company, Hartford, Conn. Carpet.....	12,043	Nov. 30	18	1227
Hunziker, Emil, Jersey City, N. J. Watch-crown.....	11,689	Mar. 16	17	573
Hursen, Sylvius, Vicksburg, Mich. Picture-chart.....	12,002	Oct. 26	18	957
Ihlenburg, Herman, Philadelphia, Pa., assignor to MacKellar, Smiths & Jordan. Font of printing-type.....	{ 11,836 to 11,837 }	June 29	17	1453
Imboden, David C., Kansas City, Mo. Letter.....	11,651	Feb. 10	17	277
Jackson, William W., assignor to MacKellar, Smiths & Jordan, Philadelphia, Pa. Font of printing-type.....	11,659	Feb. 24	17	402
Jackson, William W., assignor to MacKellar, Smiths & Jordan, Philadelphia, Pa. Font of printing-type.....	11,789	May 25	17	1159
Jacobs, Winthrop L., Jersey City, N. J., assignor to Hartford Carpet Company, Hartford, Conn. Carpet.....	11,862	July 13	18	65
Jacobs, Winthrop L., Jersey City, N. J., assignor to Hartford Carpet Company, Hartford, Conn. Carpet.....	11,870	July 13	18	65
Jacobs, Winthrop L., Jersey City, N. J., assignor to Hartford Carpet Company, Hartford, Conn. Carpet.....	11,875	July 20	18	133
Jacobs, Winthrop L., Jersey City, N. J., assignor to Hartford Carpet Company, Hartford, Conn. Carpet.....	{ 12,068 to 12,069 }	Dec. 21	18	1409
Jaworski, Herman, assignor to Sargent & Co., New Haven, Conn. Flush-bolt.....	11,678	Mar. 9	17	513
Jaworski, Herman, assignor to Sargent & Co., New Haven, Conn. Butt-hinge.....	11,634	Feb. 3	17	202
Jaworski, Herman, assignor to Sargent & Co., New Haven, Conn. Bell-pull.....	11,635	Feb. 3	17	202
Jaworski, Herman, assignor to Sargent & Co., New Haven, Conn. Door-pull.....	11,816	June 8	17	1287
Jenks, Henry F., Pawtucket, R. I. Drinking-fountain.....	11,817	June 8	17	1287
Jones, Charles T., New York, N. Y. Button-hook.....	11,876	July 20	18	133
Kaldenberg, Frederick J., New York, N. Y. Umbrella-handle.....	{ 11,731 to 11,734 }	Apr. 13	17	804
Kasinski, Rudolph, New York, assignor to North American Iron Works, Brooklyn, N. Y. Statue.....	11,984	Oct. 26	18	957
Kelty & Co., G. L. (See Oothout, William V., assignor.)				
Kennedy, Patrick, Gloucester, Mass. Monument.....	11,948	Aug. 17	18	362
King, Son & Co. (See King and Swift, assignors.)				
King, William C., Union township, Allegheny county, Pa., and G. B. Swift, Wheeling, W. Va., assignors to King, Son & Co., Pittsburg, Pa. Glassware.....	12,080	Dec. 28	18	1467
Kinsley, Miron H. (See Furniss, Albert, assignor.)				
Kitschelt, Charles, assignor to N. Muller's Sons & Co., New York, N. Y. Clock-stand.....	11,811	June 8	17	1287
Kitschelt, Charles, assignor to N. Muller's Sons & Co., New York, N. Y. Toilet-stand.....	11,812	June 8	17	1287
Kitschelt, Charles, assignor to N. Muller's Sons & Co., New York, N. Y. Clock and inkstand.....	11,813	June 8	17	1287
Kitschelt, Charles, assignor to N. Muller's Sons & Co., New York, N. Y. Match-box.....	11,863	July 13	18	65
Knorpp, Philipp, Jersey City Heights, N. J. Article of confectionery.....	12,061	Dec. 14	18	1343
Knubel, Herman, Jr., New York, N. Y. Medallion.....	11,617	Jan. 27	17	154
Kooses, Lizzie O., Brooklyn, N. Y. Card-basket or ornament.....	11,568	Jan. 6	17	1
Kureczyn, Pedro, New York, N. Y. Cigar and cigarette holder.....	11,877	July 20	18	134
Kursh, Frank, Philadelphia, Pa. Bracelet.....	11,893	Aug. 3	18	245
Kyser, Louis, and A. C. Rex, Philadelphia, Pa. Toy money-box.....	11,943	Aug. 10	18	304
Kyser, Louis, and A. C. Rex, Philadelphia, Pa. Toy money-box.....	12,044	Nov. 30	18	1227
La Belle Glass Company. (See Baggs, Andrew H., assignor.)				
Lahey, Thomas M., Brooklyn, N. Y. Bottle.....	11,864	July 13	18	65
Landenberger, Charles H., Philadelphia, Pa. Knitted fabric.....	12,072	Dec. 21	18	1409
Langdon, Nathan S. (See Eddy, Reynolds, Langdon, and Eddy.)				
Lawson, Robert W. (See Gravely and Lawson.)				
Lee, George W. (See Mann and Lee.)				
Leissner, Eduard, assignor to Leissner & Louis, New York, N. Y. Wall-paper.....	{ 11,985 to 11,995 }	Oct. 26	18	957
Leissner, Eduard, New York, N. Y. Wall-paper.....	12,009	Nov. 2	18	985
Leissner, Eduard, assignor to Leissner & Louis, New York, N. Y. Wall-paper.....	{ 12,010 to 12,014 }	Nov. 2	18	985
Leissner, Eduard, assignor to Leissner & Louis, New York, N. Y. Wall-paper.....	12,038	Nov. 23	18	1181
Leissner, Eduard, assignor to Leissner & Louis, New York, N. Y. Wall-paper.....	12,048	Nov. 30	18	1227
Leissner & Louis. (See Leissner, Eduard, assignor.)				
Lesem, Salomon J. (See Heiter and Lesem.)				
Lewis, John M., Newport, and N. R. Brice, Covington, Ky. Medal-batteries.....	11,796	June 1	17	1226
Lewis, William H., Birmingham, assignor to Maltby, Stevens & Curtiss Company, Huntington, Conn. Spoon and fork handle.....	12,053	Dec. 7	18	1279
Lieb, John A., Newark, N. J. Bracelet.....	11,664	Mar. 2	17	455
Lieb, John A., Newark, N. J., assignor to Wheeler, Parsons & Hayes, New York, N. Y. Ornamental chain.....	11,855	July 6	18	2
Lindenthal, Leopold, New York, N. Y. Upholstery-trimming.....	11,865	July 13	18	65

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Loeb, Albert H., assignor to Wheeler, Madden & Clemson Manufacturing Company, Middletown, N. Y. Saw-blade.....	11,752	Apr. 27	17	911
Lorillard & Co., P. (See Harmon, Orville S., assignor.)				
Lowell Manufacturing Company. (See Fisher, Edwin, assignor.)				
Lowell Manufacturing Company. (See Fisher, John, assignor.)				
Lowell Manufacturing Company. (See Forrester, John, assignor.)				
Lowell Manufacturing Company. (See Green, Fred W., assignor.)				
Lowell Manufacturing Company. (See Poole, Edward, assignor.)				
Lowell Manufacturing Company. (See Swapp, Charles W., assignor.)				
Lyon, George W. (See Archer and Lyon.)				
MacKellar, Smiths & Jordan. (See Ihlenburg, Herman, assignor.)				
MacKellar, Smiths & Jordan. (See Jackson, William W., assignor.)				
Mace, Stewart R., Moulton, Iowa. Watch-chain attachment.....	11,668	Mar. 2	17	455
Maddock, Thomas, New York, N. Y. Table-ware.....	11,828	June 22	17	1405
Maertens, Emile, assignor to E. and E. Scheppers, Philadelphia, Pa. Woven fabric.....	11,618	Jan. 27	17	154
Magee, Charles, Brooklyn, N. Y., assignor to Bigelow Carpet Company, Clinton, Mass. Carpet.....	12,027 } 12,028 }	Nov. 9	18	1051
Maltby, Stevens & Curtiss Company. (See Lewis, William H., assignor.)				
Manchester, Harriet E., Buffalo, N. Y. Christmas-book.....	11,970	Sept. 28	18	687
Mann, Alexander S., St. Louis, Mo. Railway bulletin-board.....	11,841	July 6	18	2
Mann, Harry C., and G. W. Lee, Frankford, Philadelphia, Pa. Game-board.....	12,029	Nov. 9	18	1051
Manning, Alfred J., assignor to A. Dougherty, New York, N. Y., and New York Consolidated Card Company. Playing-cards.....	11,979	Oct. 19	18	861
Marra, Francesco A., New York, N. Y. Ornamenting plates and dishes.....	11,697	Mar. 23	17	630
Mason, Charles E., Attleborough, Mass. Ornament upon locket-faces, &c.....	12,062	Dec. 14	18	1343
McCallum, Hugh, <i>et al.</i> (See Heald, Alfred, assignor.)				
McComas, William R., Oakley, assignor to Crane, Breed & Co., Cincinnati, Ohio. Coffin-handle.....	12,017 } 12,018 }	Nov. 9	18	1051
McHugh, Patrick, P., Brooklyn, N. Y. Visiting-card.....	11,718	Apr. 6	17	746
McKee, Stewart, Pittsburg, Pa. Pepper-cruet.....	11,744	Apr. 20	17	855
McLewee, William S. (See Nichols and McLewee.)				
McNair, David, assignor to Roxbury Carpet Company, Boston, Mass. Carpet.....	11,611	Jan. 20	17	112
McNair, David, assignor to Roxbury Carpet Company, Boston, Mass. Carpet.....	11,683	Mar. 16	17	573
McNair, David, assignor to Roxbury Carpet Company, Boston, Mass. Carpet.....	11,759	May 4	17	978
McNair, David, assignor to Roxbury Carpet Company, Boston, Mass. Carpet.....	11,842 } 11,843 }	July 6	18	2
McNair, David, assignor to Roxbury Carpet Company, Boston, Mass. Carpet.....	11,891	July 27	18	195
McNair, David, assignor to Roxbury Carpet Company, Boston, Mass. Carpet.....	11,950	Aug. 17	18	362
McNair, David, assignor to Roxbury Carpet Company, Boston, Mass. Carpet.....	12,070	Dec. 21	18	1409
Meriden Britannia Company. (See Smith, William M., assignor.)				
Mestayer, William A., Philadelphia, Pa. Stage-sceno.....	11,679	Mar. 16	17	573
Metcalf, William, <i>et al.</i> (See Miller, Reuben, assignor.)				
Meyer, Charles T. and V. E., Bergen, N. J., assignors to E. C. Sampson, New York, N. Y. Oil-cloth..	11,644 } to 11,646 } 11,769 }	Feb. 10	17	277
Meyer, Charles T. and V. E., Bergen, N. J., assignors to E. C. Sampson, New York, N. Y. Oil-cloth..	to 11,774 } 11,844 }	May 11	17	1037
Meyer, Charles T. and V. E., Bergen, N. J., assignors to E. C. Sampson, New York, N. Y. Oil-cloth..	to 11,848 } 11,894 }	July 6	18	2
Meyer, Charles T. and V. E., Bergen, N. J., assignors to E. C. Sampson, New York, N. Y. Oil-cloth..	to 11,900 }	Aug. 3	18	245
Meyer, Charles T. and V. E., Bergen, N. J., assignors to E. C. Sampson, New York, N. Y. Oil-cloth..	11,938	Aug. 10	18	304
Meyer, Charles T. and V. E., Bergen, N. J., assignors to E. C. Sampson, New York, N. Y. Oil-cloth..	11,996 } to 11,998 }	Oct. 26	18	957
Meyer, Victor E. (See Meyer, Charles T. and V. E.)				
Miller, Reuben, assignor to himself, W. Metcalf, and C. Parkin, Pittsburg, Pa. Bank-check.....	12,076	Dec. 21	18	1409
Mix, Frank W., assignor to Eagle Lock Company, Terryville, Conn. Key-bow.....	11,615	Jan. 20	17	112
Mix, Frank W., assignor to Eagle Lock Company, Terryville, Conn. Key-bows.....	11,639	Feb. 3	17	202
Montross, Isaac T., Peekskill, N. Y. Stove.....	11,957	Aug. 24	18	415
Morris, Edward L., Boston, Mass. Inkstand.....	11,951	Aug. 17	18	362
Morris, William. (See Barrett, Joseph, assignor.)				
Mott Iron Works, J. L. (See Peet, William C., assignor.)				
Muller's Sons & Co., Nicholas. (See Kitchelt, Charles, assignor.)				
Myers, Uhl & Co. (See Thayer, John, assignor.)				
Neil, John, New York, N. Y., assignor to Bigelow Carpet Company, Clinton, Mass. Carpet.....	11,849	July 6	18	2
Neil, John B., New York, N. Y., assignor to Bigelow Carpet Company, Clinton, Mass. Carpet.....	12,007	Nov. 2	18	985
Newton, Stephen S., Binghamton, N. Y. Package for powdered articles.....	11,965	Sept. 14	18	575
New York Consolidated Card Company, <i>et al.</i> (See Manning, Alfred J., assignor.)				
Ney, Elemir J., Dracut, assignor to J. H. Pray, Sons & Co., Boston, Mass. Carpeting.....	11,607	Jan. 13	17	62
Nichols, Jacob J., and W. S. McLewee, New York, N. Y. Lamp-fount.....	11,939 } 11,940 }	Aug. 10	18	304
Nordman, Henry, Brooklyn, N. Y. Carpet.....	11,832 } 11,833 }	June 29	17	1453
Nortemann, Ernest F., assignor to F. S. Bailey, Attleborough, Mass. Watch-chain attachment or end piece.....	11,665	Mar. 2	17	455
North American Iron Works. (See Kasinski, Rudolph, assignor.)				
North American Iron Works. (See Tweedale, William, assignor.)				
North & Co., O. B. (See North, William B., assignor.)				
North & Judd Manufacturing Company. (See Wightman, John E., assignor.)				
North, William B., assignor to O. B. North & Co., New Haven, Conn. Harness-trimming.....	12,030	Nov. 9	18	1051
North, William B., assignor to O. B. North & Co., New Haven, Conn. Buckle.....	12,031	Nov. 9	18	1051
Oothout, William V., Brooklyn, assignor to G. L. Kely & Co., New York, N. Y. Gimp.....	11,977	Oct. 12	18	797
Osborne, Wilbur F., Ansonia, Conn. Suspender-ends.....	11,684	Mar. 16	17	573
Page, William H., Preston, Conn. Font of printing-type.....	12,019 } to 12,021 }	Nov. 9	18	1051
Page, William H., Preston, Conn. Font of border printing-type.....	12,022	Nov. 9	18	1051
Page, William H., Preston, Conn. Font of printing-type.....	12,023 } 12,024 }	Nov. 9	18	1051
Palme, Julius, New York, N. Y. Lamp-shade.....	11,880	July 20	18	134

*Alphabetical list of patentees of designs—Continued.*

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Palmer, Henry L., Brooklyn, N. Y. Bases or supports for glasses, &c .....	11,685	Mar. 16	17	573
Parker Company, Charles. (See Griswold, Lewis F., assignor.)				
Parkin, Charles, <i>et al.</i> (See Miller, Reuben, assignor.)				
Patitz, Albert, West Meriden, Conn. Lamp-standard .....	11,941	Aug. 10	18	304
Paxton, John, Washington, D. C. Scarf-pin .....	11,672	Mar. 9	17	513
Peet, William C., Jersey City, N. J., assignor to J. L. Mott Iron Works, New York, N. Y. Fire-place ..	11,850	July 6	18	2
Peltier, Jean B. (See Vennin and Peltier.)				
Pichler, Hermann, Urach, Württemberg, Germany. Table-cover .....	11,866	July 13	18	65
Piggott, George W., New York, N. Y. Carpet .....	11,834	June 29	17	1453
Piggott, George W., New York, N. Y., assignor to Hartford Carpet Company, Hartford, Conn. Carpet ..	{ 11,851 }	July 6	18	2
Piggott, George W., New York, N. Y., assignor to Hartford Carpet Company, Hartford, Conn. Carpet ..	{ 11,852 }	July 13	18	65
Plant, Amand, New York, N. Y. Shirt-bosom .....	11,867	Oct. 19	18	861
Pool, Joseph. (See Pool, Joshua and J.)	11,980			
Pool, Joshua and J., Greensburg, Ind. Monument .....	{ 11,792 }	May 25	17	1160
Poole, Edward, Boston, assignor to Lowell Manufacturing Company, Lowell, Mass. Carpeting .....	{ 11,793 }	Feb. 3	17	202
Poole, Edward, Boston, assignor to Lowell Manufacturing Company, Lowell, Mass. Carpeting .....	{ 11,705 }	Mar. 23	17	630
Poole, Edward, Boston, assignor to Lowell Manufacturing Company, Lowell, Mass. Carpeting .....	{ 11,707 }	Mar. 30	17	688
Poole, Edward, Boston, assignor to Lowell Manufacturing Company, Lowell, Mass. Carpeting .....	{ 11,711 }	Aug. 3	18	245
Poole, Edward, Boston, assignor to Lowell Manufacturing Company, Lowell, Mass. Carpeting .....	{ 11,713 }	Aug. 3	18	245
Poole, Edward, Boston, assignor to Lowell Manufacturing Company, Lowell, Mass. Carpeting .....	{ 11,906 }	Aug. 24	18	415
Poole, Edward, Boston, assignor to Lowell Manufacturing Company, Lowell, Mass. Carpeting .....	{ 11,924 }			
Poole, Edward, Boston, assignor to Lowell Manufacturing Company, Lowell, Mass. Carpeting .....	{ 11,927 }			
Poole, Edward, Boston, assignor to Lowell Manufacturing Company, Lowell, Mass. Carpeting .....	11,954			
Porter, Frederick W., Springfield, Vt. Carriage-body .....				
Pratt & Letchworth. (See Hull, James D., assignor.)				
Pray, Sons & Co., John. (See Ney, Elemir J., assignor.)				
Quimby, Julius F., assignor to Swett, Quimby, and Perry, Troy, N. Y. Stove-door .....	11,760	May 4	17	978
Reed & Barton. (See Beattie, William C., assignor.)				
Reed & Barton. (See Hewitson, John, assignor.)				
Requa, Emma M., New York, N. Y. Badge .....	11,981	Oct. 19	18	861
Rex, Alfred C. (See Kyser and Rex.)				
Reynolds, Abraham. (See Eddy, Reynolds, Langdon, and Eddy.)				
Rich, George W., assignor to C. J. Bruschke and S. Ricke, Chicago, Ill. Furniture seat and back ...	12,049	Nov. 30	18	1227
Ricke, Sophie, <i>et al.</i> (See Rich, George W., assignor.)				
Riker, William. (See Case and Riker.)				
Ritchie, Francis. (See Vedder and Ritchie.)				
Ritchie, Joshua R., Philadelphia, Pa. Picture or mirror frame .....	11,835	June 29	17	1453
Roby, William H., East Cambridge, assignor to Boston and Sandwich Glass Company, Sandwich, Mass. Lamp-fountain .....	11,890	July 27	18	195
Rogers & Brittin Silver Company. (See Gill, George, assignor.)				
Rogers & Brittin Silver Company. (See Gill and Brittin, assignors.)				
Rogers & Brothers, C. (See Rogers, J. Wilbur, assignor.)				
Rogers, John, New Canaan, Conn. Group of statuary .....	11,797	June 1	17	1226
Rogers, John, New Canaan, Conn. Group of statuary .....	12,039	Nov. 23	18	1181
Rogers, John K., Brookline, Mass. Font of printing-type .....	11,978	Oct. 12	18	797
Rogers, John K., Brookline, Mass. Font of printing-type .....	12,035	Nov. 16	18	1117
Rogers, Julius W., administrator. (See Rogers, J. Wilbur.)				
Rogers, J. Wilbur, deceased, J. W. Rogers, administrator, assignor to C. Rogers & Brothers, West Meriden, Conn. Coffin-lid lifter .....	11,798	June 1	17	1226
Rogers, J. Wilbur, deceased, J. W. Rogers, administrator, assignor to C. Rogers & Brothers, West Meriden, Conn. Funeral ornaments .....	11,799	June 1	17	1226
Rogers, J. Wilbur, deceased, J. W. Rogers, administrator, assignor to C. Rogers & Brothers, West Meriden, Conn. Coffin-handle .....	11,818	June 8	17	1287
Rogers Manufacturing Company, William. (See Hart, Albert, assignor.)				
Rogers, William, Hartford, Conn. Spoon and fork handle .....	11,657	Feb. 24	17	402
Rogers, William, Hartford, Conn. Handle of spoons and forks .....	11,761	May 4	17	978
Rogers, William, assignor to Simpson, Hall, Miller & Co., Wallingford, Conn. Spoon and fork handles ..	11,745	Apr. 20	17	855
Rowbotham, John, Newark, N. J. Button .....	11,675	Mar. 9	17	513
Roxbury Carpet Company. (See Barrett, Joseph, assignor.)				
Roxbury Carpet Company. (See Gadsby, Walter J., assignor.)				
Roxbury Carpet Company. (See McNair, David, assignor.)				
Roxbury Carpet Company. (See Stearns, Thomas J., assignor.)				
Russell & Erwin Manufacturing Company. (See Christesen, Rodolphe, assignor.)				
Ryer, James B., New York, N. Y. Woven fabric .....	11,580	Jan. 13	17	62
Sampson, Edward C. (See Meyer, Charles T. and V. E., assignors.)				
Sargent & Co. (See Brocksieper, Frederick W., assignor.)				
Sargent & Co. (See Cuppers, Emil A., assignor.)				
Sargent & Co. (See Jaworski, Herman, assignor.)				
Sargent & Co. (See Stevens, William E., assignor.)				
Sargent, Joseph B., New Haven, Conn. Funeral ornament .....	12,032	Nov. 9	18	1051
Scheppers, Edward, <i>et al.</i> (See Maertens, Emile, assignor.)				
Scheppers, Emile, <i>et al.</i> (See Maertens, Emile, assignor.)				
Schild, Henry, Baltimore, Md. Neck-ruching .....	11,567	Jan. 6	17	1
Schneider, Bennett B., New York, N. Y. Lamp-shade .....	11,901	Aug. 3	18	245
Schoenhof, Jacob, New York, N. Y. Skirt .....	12,045	Nov. 30	18	1227
Seery, Edward F., Providence, R. I. Ornamental chain-link .....	11,790	May 25	17	1159
Seidensticker, Fred. R., assignor to Bradley & Hubbard Manufacturing Company, West Meriden, Conn. Lamp-bracket .....	11,823	June 15	17	1353
Seidensticker, Fred. R., assignor to Bradley & Hubbard Manufacturing Company, West Meriden, Conn. Lamp-standard .....	11,829	June 22	17	1405
Seidensticker, F. Robert, West Meriden, Conn. Chandelier .....	11,942	Aug. 10	18	304
Seidensticker, F. Robert, Meriden, assignor to Bradley & Hubbard Manufacturing Company, West Meriden, Conn. Lamp-bracket .....	12,036	Nov. 16	18	1117
Shepherd, Frank H., Boston, assignor to J. W. Tufts, Medford, Mass. Holder for flowers, matches, &c. { 11,596 }	{ 11,596 }	Jan. 13	17	62
Shepherd, Frank H., Boston, assignor to J. W. Tufts, Medford, Mass. Holder for flowers, matches, &c. { 11,598 }	{ 11,598 }	Jan. 13	17	62
Shepherd, Frank H., Boston, assignor to J. W. Tufts, Medford, Mass. Draft-stand for aerated and other beverages .....	{ 11,600 }	Mar. 30	17	688
Shepherd, Frank H., Boston, assignor to J. W. Tufts, Medford, Mass. Draft-stand for aerated and other beverages .....	{ 11,601 }			
Shepherd, Frank H., Boston, assignor to J. W. Tufts, Medford, Mass. Draft-stand for aerated and other beverages .....	11,714			

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Sheppard, Isaac A., Philadelphia, Pa. Range.....	11,815	June 8	17	1287
Sheppard, Isaac A., Philadelphia, Pa. Cooking-stove.....	11,881	July 20	18	134
Shoemaker, John H., Newark, N. J. Bracelet.....	11,599	Jan. 13	17	62
Sigourney, Frank W., Bristol, Conn. Cigar-box.....	11,819	June 8	17	1287
Simpson, G. F., <i>et al.</i> (See Textor, Henry, assignor.)				
Simpson, Hall, Miller & Co. (See Rogers, William, assignor.)				
Simpson, J. S., <i>et al.</i> (See Textor, Henry, assignor.)				
Skoeg, Rudolph, New York, N. Y. Holders for brushes.....	11,719	Apr. 6	17	746
Sloan, Andrew J., <i>et al.</i> (See Heald, Alfred, assignor.)				
Smith & Co., H. D. (See Ward, William S., assignor.)				
Smith, William M., assignor to Meriden Britannia Company, West Meriden, Conn. Coffin-handle..	11,652	Feb. 10	17	278
Smith, William M., assignor to Meriden Britannia Company, West Meriden, Conn. Funeral orna- ments.....	11,754	Apr. 27	17	912
Smith, William M., assignor to Meriden Britannia Company, West Meriden, Conn. Coffin-screw..	11,765	May 4	17	978
Smith, William M., assignor to Meriden Britannia Company, West Meriden, Conn. Coffin-plate....	11,945	Aug. 17	18	361
	11,946			
Smith, Wright, Paterson, N. J. Pattern for a handkerchief.....	11,962	Sept. 14	18	575
Smythe, Andrew E., <i>et al.</i> (See Caldwell, Edward P., assignor.)				
Spindler, Charles E., <i>et al.</i> (See Heyer, Charles E., assignor.)				
Stearns, Thomas J., assignor to Roxbury Carpet Company, Boston, Mass. Carpet.....	11,612	Jan. 20	17	112
Stearns, Thomas J., assignor to Roxbury Carpet Company, Boston, Mass. Carpet.....	11,619	Jan. 27	17	154
Stearns, Thomas J., assignor to Roxbury Carpet Company, Boston, Mass. Carpet.....	11,647	Feb. 10	17	277
Stearns, Thomas J., assignor to Roxbury Carpet Company, Boston, Mass. Carpet.....	11,654	Feb. 17	17	334
Stearns, Thomas J., assignor to Roxbury Carpet Company, Boston, Mass. Carpet.....	11,666	Mar. 2	17	455
Stearns, Thomas J., assignor to Roxbury Carpet Company, Boston, Mass. Carpet.....	11,691	Mar. 16	17	574
Stearns, Thomas J., assignor to Roxbury Carpet Company, Boston, Mass. Carpet.....	11,720	Apr. 6	17	746
Stearns, Thomas J., assignor to Roxbury Carpet Company, Boston, Mass. Carpet.....	11,800	June 1	17	1226
	to			
	11,802			
Stearns, Thomas J., Boston, Mass. Carpet.....	11,803	June 1	17	1226
Stearns, Thomas J., assignor to Roxbury Carpet Company, Boston, Mass. Carpet.....	11,949	Aug. 17	18	362
Stearns, Thomas J., assignor to Roxbury Carpet Company, Boston, Mass. Carpet.....	12,046	Nov. 30	18	1227
Stein, S. G., <i>et al.</i> (See Heyer, Charles E., assignor.)				
Steinle, Edmund, New York, N. Y. Base of a jewel-box.....	11,762	May 4	17	978
Steinway, C. F. Theodor, New York, N. Y. Piano-forte case.....	11,856	July 6	18	2
Stephan, Jacob, Cleveland, Ohio. Sewing-machine case.....	11,971	Sept. 28	18	687
Stevens, William E., assignor to Sargent & Co., New Haven, Conn. Coffin-handle socket.....	11,791	May 25	17	1159
Stevens, William E., assignor to Sargent & Co., New Haven, Conn. Coffin-handle socket.....	11,857	July 6	18	2
	12,055	Dec. 7	18	1279
Stimpson, Edwin B., Brooklyn, N. Y. Ornamental border.....	to			
	12,058			
Stivers, Rufus M., New York, N. Y. Frame-work for sleighs.....	11,944	Aug. 17	18	361
	11,581	Jan. 13	17	62
Swapp, Charles W., Boston, assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet....	to			
	11,595			
Swapp, Charles W., Boston, assignor to Lowell Manufacturing Company, Lowell, Mass. Carpet....	11,605	Jan. 13	17	62
Swapp, Charles W., Boston, assignor to Lowell Manufacturing Company, Lowell, Mass. Carpeting..	11,621	Feb. 3	17	202
	11,622			
	11,907	Aug. 3	18	245
Swapp, Charles W., Boston, assignor to Lowell Manufacturing Company, Lowell, Mass. Carpeting..	to			
	11,920			
	11,928	Aug. 3	18	245
Swapp, Charles W., Boston, assignor to Lowell Manufacturing Company, Lowell, Mass. Carpeting..	to			
	11,931			
Swett, Quimby & Perry. (See Quimby, Julius F., assignor.)				
Swift, George B. (See King and Swift.)				
Tétrel, Prosper, Paris, France, assignor to Bigelow Carpet Company, Clinton, Mass. Carpet.....	11,602	Jan. 13	17	62
Tétrel, Prosper, Paris, France, assignor to Bigelow Carpet Company, Clinton, Mass. Carpet.....	11,613	Jan. 20	17	112
	12,025	Nov. 9	18	1051
Textor, Henry, assignor to J. S. and G. F. Simpson, Brooklyn, N. Y. Newel-post.....	12,026			
Thau, Henry, New York, N. Y. Bex-bell.....	12,047	Nov. 30	18	1227
Thayer, John, assignor to Myers, Uhl & Co., Cleveland, Ohio. Monument.....	11,648	Feb. 10	17	277
Tiffany & Co. (See Grosjean, Charles T., assignor.)				
Tilt, Albert, Paterson, N. J. Handkerchief.....	11,673	Mar. 9	17	513
Tufts, James W. (See Shepherd, Frank H., assignor.)				
Tufts, James W., Medford, Mass. Holders for flowers, matches, &c.....	11,660	Feb. 24	17	402
Tunstall, Robert B., Norfolk, Va. Head of picture-screws.....	12,074	Dec. 21	18	1409
Tuttle, Lucius B., New Haven, Conn. Clock-frame.....	11,676	Mar. 9	17	513
Tweedale, William, assignor to North American Iron Works, Brooklyn, N. Y. Fountain.....	11,975	Oct. 12	18	797
Upton, Gabriel, assignor to C. Button and T. A. Fleu, Philadelphia, Pa. Fringe for knitted fabrics..	11,804	June 1	17	1226
Vedder, Nicholas S., deceased, (O. G. Clark, Troy, and D. D. Bucklin, Lansingburg, executors,) and T. S. Heister, Lansingburg, N. Y.; said Heister assignor to said Clark and Bucklin. Cooking- stove.....	11,872	July 20	18	133
Vedder, Nicholas S., deceased, (O. G. Clark, Troy, and D. D. Bucklin, Lansingburg, executors,) and T. S. Heister, Lansingburg, N. Y.; said Heister assignor to said Clark and Bucklin. Stove.....	11,882	July 20	18	134
Vedder, Nicholas S., deceased, (O. G. Clark, Troy, and D. D. Bucklin, Lansingburg, executors,) and T. S. Heister, Lansingburg, N. Y.; said Heister assignor to said Clark and Bucklin. Cooking- stove.....	11,883	July 20	18	134
Vedder, Nicholas S., deceased, (O. G. Clark, Troy, and D. D. Bucklin, Lansingburg, executors,) and T. S. Heister, Lansingburg, N. Y.; said Heister assignor to said Clark and Bucklin. Base-burning stove.....	11,884	July 20	18	134
Vedder, Nicholas S., deceased, (O. G. Clark, Troy, and D. D. Bucklin, Lansingburg, executors,) and T. S. Heister, Lansingburg, N. Y.; said Heister assignor to said Clark and Bucklin. Magazine- stove.....	11,886	July 27	18	195
Vedder, Nicholas S., deceased, (O. G. Clark, Troy, and D. D. Bucklin, Lansingburg, executors,) and F. Ritchie, Troy, N. Y.; said Ritchie assignor to said Clark and Bucklin. Cooking-stove.....	11,887	July 27	18	195
Vedder Pattern Works, Bascom, Galbraith & Co., N. S. (See Bascom and Heister, assignors.)				
Vennin, Adolphe, and J. B. Peltier, Paris, France. Gem-setting.....	12,037	Nov. 16	18	1117
Vester, Adolph, Attleborough, Mass. Ornamental pin.....	11,735	Apr. 13	17	804
	11,742	Apr. 20	17	855
Wagner, Albert, New York, N. Y., assignor to J. Estey & Co., Brattleborough, Vt. Organ-case....	11,743			
	12,031	Dec. 28	18	1467
Waldron, Charles F., Boston, Mass. Button.....	11,641	Feb. 3	17	202
Ward, William S., assignor to H. D. Smith & Co., Plantsville, Conn. Carriage-shackles.....	11,667	Mar. 2	17	455
Warner, William R., Philadelphia, Pa. Glass vessel.....				



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Wells, Benjamin T., Boston, Mass. Campaign-cloak.....	11,974	Oct. 5	18	737
Wheeler, Madden & Clemson Manufacturing Company. (See Loebs, Albert H., assignor.)				
Wheeler, Parsons & Hayes. (See Beam, Daniel A., assignor.)				
Wheeler, Parsons & Hayes. (See Lieb, John A., assignor.)				
White, Le Roy S., assignor to Brown & Brothers, Waterbury, Conn. Spoon, fork, &c.....	11,700	Mar. 23	17	630
Wiard, Matthew, Philadelphia, Pa. Stall-guard.....	11,721	Apr. 6	17	746
Wiard, Matthew, Philadelphia, Pa. Carriage-door fender.....	11,805	June 1	17	1226
Wiard, Matthew, Philadelphia, Pa. Stable hay-rack.....	11,853	July 6	18	2
Wiard, Matthew, Philadelphia, Pa. Post for stable-stalls.....	11,854	July 6	18	2
Wightman, John E., assignor to North & Judd Manufacturing Company, New Britain, Conn. Roller-buckle.....	11,649	Feb. 10	17	277
Wilkinson, George, assignor to Gorham Manufacturing Company, Providence, R. I. Spoon and fork..	11,814	June 8	17	1287
Wilkinson, Harris C., <i>et al.</i> (See Caldwell, Edward P., assignor.)				
Will, August, Jersey City, N. J., assignor to D. W. Bruce, New York, N. Y. Font of printing-type.....	{ 12,004 }	Oct. 26	18	957
Will, August, Jersey City, N. J., assignor to D. W. Bruce, New York, N. Y. Font of printing-type.....	{ 12,005 }			
Woodrough, James R., assignor to Woodrough & McParlin, Cincinnati, Ohio. Saw-handle.....	12,008	Nov. 2	18	985
Woodrough & McParlin. (See Woodrough, James R., assignor.)	11,603	Jan. 13	17	62
Yergason, Edgar S., Hartford, Conn. Curtain and loop.....	11,947	Aug. 17	18	362
Zeese, Alexander, Chicago, Ill. Font of printing-type.....	11,955	Aug. 24	18	415

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Albee, Edwin W., Dubuque, Iowa. Crackers.....	8,108	Nov. 30	18	1227
Alden Emery Company, Boston, Mass. Corundum.....	7,961	July 6	18	2
Allen, Charles W., Avondale, Ohio. Plug chewing-tobacco.....	8,016	Aug. 31	18	467
Allen, Charles W., Avondale, Ohio. Plug chewing-tobacco.....	8,109	Dec. 7	18	1280
Allen, Charles W., Avondale, Ohio. Plug chewing-tobacco.....	8,134	Dec. 28	18	1467
Allen & Ellis, New York, N. Y., Chicago, Ill., and Cincinnati, Ohio. Plug chewing-tobacco.....	7,839	Mar. 2	17	456
Allen & Ellis, New York, N. Y., Chicago, Ill., and Cincinnati, Ohio. Chewing-tobacco.....	7,840	Mar. 2	17	456
Allen & Ellis, New York, N. Y., Chicago, Ill., and Cincinnati, Ohio. Manufactured chewing and smoking tobacco.....	7,841	Mar. 2	17	456
Allen & Ellis, New York, N. Y., Chicago, Ill., and Cincinnati, Ohio. Manufactured chewing and smoking tobacco.....	7,842	Mar. 2	17	456
Alles & Fisher, Boston, Mass. Cigars.....	8,031	Sept. 14	18	575
American Lubricating Oil Company, Cleveland, Ohio. Hoof-ointment.....	8,088	Nov. 9	18	1051
Anderson, Graham K., New York, N. Y. Compressed yeast.....	7,954	June 29	17	1454
Andrae, Louis, New York, N. Y. Cigars.....	8,133	Dec. 28	18	1467
Apsley, William W., Philadelphia, Pa. Shoe-tip.....	7,979	July 20	18	134
Apsley, William W., Philadelphia, Pa. Shoe-tip.....	8,000	Aug. 10	18	304
Arbuckle Brothers, New York, N. Y., and Pittsburg, Pa. Roasted coffee.....	8,058	Oct. 12	18	798
Arthur, Benjamin F., Holyoke, Mass. Medicinal preparation.....	7,907	May 18	17	1097
Aschermann & Co., Edward, Milwaukee, Wis. Cigars.....	7,924	June 1	17	1226
Aschermann & Co., Ed., Milwaukee, Wis. Cigars.....	8,087	Nov. 9	18	1051
Ayres, James L., Sidney, Ohio. School desk and bench.....	8,080	Nov. 2	18	985
Bass, Charles H., New York, N. Y. Shoe.....	7,915	May 18	17	1097
Beasley, William H., Canton, Mass. Herbal bitters.....	8,050	Sept. 28	18	687
Beck & Co., Bremen, Germany. Lager-beer.....	7,984	Aug. 3	18	245
Bell & Co., S. W., Toledo, Ohio. Soap.....	7,874	Apr. 13	17	804
Benesia Chemical Company, Franklin, Mass. Liquid eye-wash.....	7,818	Feb. 10	17	278
Bennett, Charles, South Abington, Mass. Liniment, condition-powders, and ointment.....	7,959	July 6	18	2
Bent, George P., Chicago, Ill. Organ, piano, and melodeon.....	7,958	June 29	17	1454
Bischoff, Schults & Co., New York, N. Y. Cigars and snuff.....	8,101	Nov. 23	18	1182
Bissell & Co., Pittsburg, Pa. Cook-stoves and ranges.....	8,121	Dec. 21	18	1409
Blake Crusher Company, New Haven, Conn. Stone-crusher.....	7,827	Feb. 17	17	334
Blank, Oscar, St. Louis, Mo. Laxative and alterative medicine.....	8,006	Aug. 17	18	362
Blossom, Hayne & Co., New York, N. Y. Spirits of turpentine in cans, cases, or barrels.....	7,802	Jan. 27	17	154
Bond, Addie, New York, N. Y. Detergent compound.....	7,998	Aug. 10	18	304
Bondier, Ulbrich & Cie, Paris, France. Tobacco-pipes and cigar and cigarette holders.....	7,947	June 22	17	1405
Boston Cooperative Association, Boston, Mass. Cigars.....	8,135	Dec. 28	18	1467
Bowers, James, Newark, N. J. Corsets or boxes containing corsets.....	8,113	Dec. 7	18	1280
Boyle, John C., Sparta, Ill. Wheaten flour.....	7,993	Aug. 10	18	304
Brewer, Charles, Vineland, N. J. Poultry-powders.....	7,948	June 22	17	1405
Brown & Brothers, Winston, N. C. Plug chewing-tobacco.....	8,020	Sept. 7	18	523
Brown & Sons, A. B., Worcester, Mass. Compound for coating metals for prevention of rust.....	7,813	Feb. 3	17	202
Buchanan & Lyall, New York, N. Y. Cigars, cigarettes, plug and fine-cut smoking and chewing tobacco, and snuff.....	8,044	Sept. 21	18	627
Buchanan & Lyall, New York, N. Y. Plug and fine-cut smoking and chewing tobacco.....	8,045	Sept. 21	18	627
Bucklen, Herbert E., Chicago, Ill. Tonic bitters.....	7,938	June 8	17	1288
Buffalo Cement Company, (limited,) Buffalo, N. Y. Cement.....	7,855	Mar. 23	17	630
Butler, Thomas A., New Bedford, Mass. Soap.....	8,074	Oct. 26	18	957
Camp Spring Mill Company, St. Louis, Mo. Flour.....	7,988	Aug. 3	18	246
Camp Spring Mill Company, St. Louis, Mo. Flour.....	7,989	Aug. 3	18	246
Capen, Nathan S., Brandon, Vt. Butter-color.....	8,114	Dec. 7	18	1280
Carver, Nathaniel, and J. R. Stacy, Togus P. O., Me. Medicine for rheumatism, neuralgia, and similar diseases.....	7,887	Apr. 27	17	912
Cassebeer, Henry A., Jr., New York, N. Y. Medicinal preparations.....	7,953	June 29	17	1454
Centemeri & Co., P., New York, N. Y., and Milan, Italy. Kid glove.....	7,898	May 4	17	978
Chamberlain & Co., Marion, Iowa. Certain proprietary medicines.....	8,136	Dec. 28	18	1467
Chase & Budlong, Aurora, Ill. Preparation for chapped skin.....	7,918	May 25	17	1160
Clemmer, David F., Middlebrook, Va. Whisky.....	7,800	Jan. 27	17	154
Coe & Harbaugh, Cleveland, Ohio. Lard.....	7,974	July 20	18	134
Colburn, Birks & Co., Peoria, Ill. Coal-oil.....	8,028	Sept. 14	18	575
College Point Rubber Company, (limited,) College Point, N. Y. Hard-rubber articles.....	7,814	Feb. 10	17	278
Collins, Henry C., Georgiaville, R. I. Medicine.....	8,137	Dec. 28	18	1467
Colman, Howard G., Kalamazoo, Mich. Certain proprietary medicine.....	8,084	Nov. 2	18	985
Combo & Oriol, A., Paris, France. Kid-leather.....	7,888	Apr. 27	17	912
Conkle, Harry C., Philadelphia, Pa. Cotton and woolen darning-yarn.....	8,090	Nov. 16	18	1117
Cook, Aldrich, Leominster, Mass. Braid-pin.....	7,838	Mar. 16	17	574
Cook, Carlos A., Chicago, Ill. Remedy for diseases of the urinary organs.....	7,844	Mar. 2	17	456
Coolidge, Cassius M., Rochester, N. Y. Medicinal preparation.....	7,878	Apr. 20	17	855
Cotterill, Fenner & Co., Dayton, Ohio. Fine-cut chewing-tobacco.....	7,819	Feb. 10	17	278
Corvoisier & Co., Ph., Paris, France. Glove.....	7,794	Jan. 13	17	62
Crawford, William H., St. Louis, Mo. Preparations for the cleansing and preservation of the teeth.....	8,007	Aug. 17	18	362
Crispin Brothers, Waynesville, Ohio. Ointment.....	8,075	Oct. 26	18	957
Croft & Knapp, South Norwalk, Conn. Felt hat.....	7,875	Apr. 13	17	804
Croft & Knapp, South Norwalk, Conn. Felt hat.....	7,940	June 15	17	1353
Cullingworth & Ellison, Richmond, Va. Chewing and smoking tobacco.....	7,957	June 29	17	1454
Davies, Henry J., Brooklyn, N. Y. Clock.....	7,991	Aug. 3	18	246
Davies, Henry J., Brooklyn, N. Y. Clock.....	8,078	Nov. 2	18	985

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Name, residence, and title.	No.	Date.	Official Gazette.	
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Davis & Co., Curtis, Cambridge, Mass. Soap	7,925	June 1	17	1226
De Forest, Charles A. L., and H. C. Driggs, Brooklyn, N. Y. Lubricating and illuminating oils and oils for protecting polished metallic surfaces	7,833	Feb. 24	17	402
Dittmer, Fred, Detroit, Mich. Beer	8,021	Sept. 7	18	523
Dittmer, Fred, Detroit, Mich. Beer	8,048	Sept. 28	18	687
Driggs, Hiram C. (See De Forest and Driggs.)				
Dudley, Charles H., Boston, Mass. Lead-pencils for carpenters and draftsmen	7,823	Feb. 17	17	334
Eddystone Manufacturing Company, (limited,) Philadelphia, Pa. Dry-goods	7,931	June 1	17	1226
Eddystone Manufacturing Company, (limited,) Philadelphia, Pa. Prints	7,932	June 1	17	1226
Eddystone Manufacturing Company, (limited,) Philadelphia, Pa. Dry-goods	7,933	June 1	17	1226
Elward, Mathew, Providence, R. I. Certain medicine	7,894	May 4	17	978
Emery, Charles G., Brooklyn, N. Y. Cigars, cigarettes, and smoking and chewing tobacco	7,870	Apr. 13	17	804
Empire Mill Company, St. Louis, Mo. Wheat-flour	7,795	Jan. 20	17	112
Estey & Co., J., Brattleborough, Vt. Piano	8,056	Oct. 12	18	798
Etheridge, J. S., Rochester, N. Y. Beverage preparation	7,985	Aug. 3	18	245
Evanovitch, Gusser, New York, N. Y. Certain pharmaceutical preparation	8,104	Nov. 30	18	1227
Evers & Temme, St. Louis, Mo. Cooking stove and range	7,934	June 8	17	1287
Farnum & Co., John, Philadelphia, Pa. Tickings	7,879	Apr. 20	17	855
Farnum & Co., John, Philadelphia, Pa. Tickings	7,880	Apr. 20	17	855
Felgner & Son, F. W., Baltimore, Md. Smoking and chewing tobacco, cigars, cigarettes, cheroots, and snuff	7,828	Feb. 17	17	334
Felt & Hotchkin, Watertown, N. Y. Packages of dyes	7,975	July 20	18	134
Ferguson, Walker & Co., Boston, Mass. Manufactured fish	8,091	Nov. 16	18	1117
Fisk, Clark & Flagg, New York, N. Y. Made-up scarfs for men's wear	7,871	Apr. 13	17	804
Fortin & Co., Charles, Paris, France. Kid glove	7,963	July 6	18	2
Fontz, Sarah J., Baltimore, Md. Veterinary powders	7,973	July 13	18	65
Frazar & Co., (of China,) New York, N. Y., Shanghai, China, and Yokohama, Japan. Green, Japan, and black teas	7,858	Mar. 23	17	630
Freiberg & Levi, Cincinnati, Ohio. Whisky	8,004	Aug. 17	18	362
Frey, Louis C., Cincinnati, Ohio. Cigars, cigarettes, cheroots, smoking-tobacco, chewing-tobacco, and snuff	8,002	Aug. 10	18	304
Frick & Co., Waynesborough, Pa. Portable engine	7,790	Jan. 6	17	1
Friederich, Anton, Chicago, Ill. Printer's wash	7,992	Aug. 3	18	246
Frothingham, Baylis & Co., New York, N. Y. Flax duck or canvas	7,793	Jan. 13	17	62
Fuzzard, Marie J., Chelsea, Mass. Medical compound for dysmenorrhœa	8,105	Nov. 30	18	1227
Gahn, Joseph, Boston, Mass. Lager-beer	7,899	May 4	17	978
Gale Manufacturing Company, Albion, Mich. Plow	8,049	Sept. 28	18	687
Gates, John A., Kalamazoo, Mich. Medicine for the cure of scrofula and similar diseases	8,029	Sept. 14	18	575
Gentian Bitters Company, East New York, N. Y. Bitters, liniments, and kindred medical preparations	7,901	May 11	17	1037
Gerry & Co., Samuel, Providence, R. I. Medical preparation	7,847	Mar. 9	17	513
Giglio & Freschi, New York, N. Y. Cigars	7,926	June 1	17	1226
Ginter, Lewis, Richmond, Va. Smoking-tobacco and cigarettes	7,900	May 4	17	978
Glazier, George F., Chelsea, Mich. Hops and malt bitters	7,951	June 22	17	1405
Green, George G., Woodbury, N. J. Medicinal preparation	8,059	Oct. 12	18	798
Griggs, A. Irving, Westford, N. Y. Zinc stove-board	8,081	Nov. 2	18	985
Grunhagen, Henry, St. Paul, Minn. Cigars	7,804	Feb. 3	17	202
Gumpert Brothers, Philadelphia, Pa. Cigars	8,053	Oct. 5	18	737
Gumpert Brothers, Philadelphia, Pa. Cigars	8,060	Oct. 12	18	798
Hampton, Moses L., Long Branch, N. J. Cigars, cigarettes, and chewing and smoking tobacco	7,843	Mar. 2	17	456
Harrison Brothers & Co., Gray's Ferry, Philadelphia, Pa. Finely-powdered alum	7,919	May 25	17	1160
Harvey, Leonora J., New York, N. Y. Pills	7,944	June 22	17	1405
Haslam & Co., John, Manchester, Bolton, and London, England. Plain and fancy muslins	7,969	July 13	18	66
Hatch & Jenks, Jamestown and New York, N. Y., and Cincinnati, Ohio. Baking-powder, yeast-powder, and similar bread preparations	7,970	July 13	18	66
Haworth & Williams, Newark, N. J. Cigars, cigarettes, and smoking and chewing tobacco	7,935	June 8	17	1287
Hazelton Brothers, New York, N. Y. Piano	7,866	Apr. 6	17	746
Hearn & Co., T. H., Boston, Mass. Hair preparation	7,920	May 25	17	1160
Heilner & Strauss, New York, N. Y., and North Brookfield, Mass. Corset	7,791	Jan. 6	17	1
Hellwig, Ferdinand W., Gloversville, N. Y. Dress-glove	7,867	Apr. 6	17	746
Hernsheim & Brother, Simon, New Orleans, La. Chewing and smoking tobacco, cigars, and cigarettes	7,960	July 6	18	2
Heyer & Co., Ottman W., St. Louis, Mo. Corn-sirup	8,070	Oct. 19	18	861
Heyman, George, New York, N. Y. Spring bed-bottom	7,972	July 13	18	66
Hezel Milling Company, St. Louis, Mo. Flour	8,013	Aug. 24	18	416
Higgins, Charles S., Brooklyn, N. Y. Soap	7,834	Feb. 24	17	402
Higgins, Charles S., Brooklyn, N. Y. Soap	7,850	Mar. 9	17	514
Hill Manufacturing Company, Lewiston, Me. Woven cotton fabrics, unbleached, bleached, and colored	7,796	Jan. 20	17	112
Hill Manufacturing Company, Lewiston, Me. Woven cotton fabrics, unbleached, bleached, and colored	7,797	Jan. 20	17	112
Hirschl & Bendheim, St. Louis, Mo. Cigars, cigarettes, cheroots, and smoking and chewing tobacco	8,122	Dec. 21	18	1409
Hiscox & Co., New York, N. Y. Cologne-water	8,067	Oct. 19	18	861
Hoffheimer Brothers, Cincinnati, Ohio. Whisky	7,964	July 13	18	65
Hoffheimer Brothers, Cincinnati, Ohio. Whisky	7,965	July 13	18	65
Hoffman & Co., Red Hook, N. Y. Chewing and smoking tobacco	7,971	July 13	18	66
Hoffmann & Co., William, New York, N. Y. Wash-blue	8,110	Dec. 7	18	1280
Hoffmann & Co., William, New York, N. Y. Wash-blue	8,111	Dec. 7	18	1280
Hop Bitters Manufacturing Company, Rochester, N. Y. Hop-bitters	8,024	Sept. 7	18	523
Howard & Scherrieble, New York, N. Y., and Providence, R. I. Jewelry, comprising lace-pins, scarf-pins, ear-rings, ear-drops, brooches, studs, sleeve-buttons, and scarf-rings	8,095	Nov. 16	18	1117
Huckfeld, Hermann, Brooklyn, N. Y. Cigars	8,061	Oct. 12	18	798
Iselin, Neeser & Co., New York, N. Y. Velvets, silks, and veilings	8,118	Dec. 14	18	1343
Jaeger Brothers, New York, N. Y. Cigars, cigarettes, and smoking and chewing tobacco	7,882	Apr. 27	17	912
Jevne, Christian, Chicago, Ill. Tea	8,115	Dec. 7	18	1280
Johnson & Bishop, Bayport, N. Y. Tonic beverages	7,911	May 18	17	1097
Johnston, Fisher & Co., Chillicothe, Mo. Plug chewing tobacco	7,868	Apr. 6	17	746
Jordan, Andrew J., St. Louis, Mo. Clasp-knife	7,930	July 20	18	134
Kalman Brothers & Bremer, Milwaukee, Wis. Cigars	8,068	Oct. 19	18	861
Kaoka Manufacturing Company, St. Thomas, Ontario, Canada. A beverage for the table used as a substitute for coffee	7,916	May 18	17	1097
Kearney & Foot, New York, N. Y. Iron and steel files	8,005	Aug. 17	18	362
Kelley, Theodore Y., Snow Hill, London, England. Blacking and polish	8,047	Sept. 28	18	687
Kingsford, Thomson, Oswego, N. Y. Starch	8,041	Sept. 21	18	627

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Kinney Tobacco Company, New York, N. Y. Cigars, cigarettes, cheroots, plug, smoking, and chewing tobacco.....	8,038	Sept. 14	18	575
Kinney Tobacco Company, New York, N. Y. Cigars, cigarettes, cheroots, and plug, smoking, and chewing tobacco.....	8,051	Sept. 28	18	687
Kinney Tobacco Company, New York, N. Y. Cigars, cigarettes, cheroots, and plug, smoking, and chewing tobacco.....	8,052	Sept. 28	18	687
Kirsch, Charles, St. Louis, Mo. Rheumatic liniment.....	8,112	Dec. 7	18	1280
Knecht, Gustav, Chicago, Ill. Razors, knives, shears, scissors, and surgical instruments.....	8,106	Nov. 30	18	1227
Knight, H. Williston, New York, N. Y. Button.....	7,909	May 18	17	1097
Knight, H. Williston, New York, N. Y. Button.....	7,910	May 18	17	1097
Kolb, Henry, New York, N. Y. Flour.....	7,803	Jan. 27	17	154
Krohn, Feiss & Co., Cincinnati, Ohio. Cigars.....	7,824	Feb. 17	17	334
Krohn, Feiss & Co., Cincinnati, Ohio. Cigars.....	7,825	Feb. 17	17	334
Kuhnen, Nicholas, Davenport, Iowa. Cigars, cigarettes, and chewing and smoking tobacco.....	8,057	Oct. 12	18	798
Lang & Shepard, Pittsburg, Pa. All kinds of brooms and wisps.....	8,123	Dec. 21	18	1409
Langman & Kemp, New York, N. Y. Certain toilet preparations.....	7,830	Feb. 17	17	334
Langman & Kemp, New York, N. Y. Certain medicinal preparations.....	7,845	Mar. 2	17	456
Larzelere & Co., James H., Philadelphia, Pa. Certain canned goods.....	8,117	Dec. 14	18	1342
Lawrence & Martin, Chicago, Ill. Remedy for diseases of the throat and lungs.....	7,799	Jan. 20	17	112
Lediard, Charles, New York, N. Y. Whisky.....	7,829	Feb. 17	17	334
Leeson, John, Cadillac, Mich. Compound for the cure of pain.....	7,994	Aug. 10	18	304
Lehmann, Charles, Brooklyn, N. Y. Beating and mixing machines.....	7,792	Jan. 6	17	2
Linck, Emil J., Baltimore, Md. Pattern-charts for drafting garments.....	7,902	May 11	17	1037
Liuk, Isaac N., Durham, N. C. Smoking-tobacco.....	7,805	Feb. 3	17	202
Link, Isaac N., Durham, N. C. Smoking-tobacco.....	7,806	Feb. 3	17	202
Lloyd, John, Hazleton, Pa. Certain medicinal preparation.....	7,983	July 27	18	195
Lloyd, Snpplee & Walton, Philadelphia, Pa. Lawn-mower.....	7,890	May 4	17	978
Lockitt & Sons, George, Brooklyn, N. Y. Tea.....	7,917	May 18	17	1097
Lohman & Co., G. H., Kendallville, Ind. Certain medical compound for the cure of blood and liver maladies.....	8,046	Sept. 21	18	627
Loomis, Lauris, Brooklyn, N. Y. Cotton sheeting and duck.....	7,820	Feb. 10	17	278
Lorenz Brothers, Toledo, Ohio. Toilet-powder.....	7,856	Mar. 23	17	630
Lorenz Brothers, Toledo, Ohio. Toilet-powder.....	7,857	Mar. 23	17	630
Lozano, Pendas & Co., New York, N. Y. Cigars, cigarettes, and smoking and chewing tobacco.....	8,065	Oct. 12	18	798
Mabie, Todd & Bard, New York, N. Y. Gold pen.....	8,025	Sept. 7	18	523
Macy & Co., R. H., New York, N. Y. Wrapping and writing paper.....	7,851	Mar. 9	17	514
Maginn, Mark A., Brooklyn, N. Y. Whisky.....	8,054	Oct. 5	18	737
Mantonya, Lucius B., Chicago, Ill. Boot.....	7,941	June 15	17	1353
Marshall, John R., Dublin, Ohio. Medical compound.....	8,026	Sept. 7	18	523
Matthews, John, New York, N. Y. Aerated waters.....	7,807	Feb. 3	17	202
Matthews, John N., Baltimore, Md. Patent-process flour.....	8,043	Sept. 21	18	627
Mauger & Petrie, Victor E., New York, N. Y. Prepared baby-food.....	7,848	Mar. 9	17	514
Maurice, Alfred, New York, N. Y. Liver-medicine.....	8,011	Aug. 24	18	416
Mayer Brothers & Co., New York, N. Y. Bitters.....	7,912	May 18	17	1097
McCann, George H., Springfield, Mo. Smoking-tobacco.....	7,896	May 4	17	978
McCarthy, Sons & Co., D., Syracuse, N. Y. Dress-shirt.....	7,808	Feb. 3	17	202
McCarthy, Sons & Co., D., Syracuse, N. Y. Dress-shirt.....	7,809	Feb. 3	17	202
McCoy & Co., New York, N. Y. Cigars, cigarettes, and smoking and chewing tobacco.....	7,895	May 4	17	978
McMurray & Co., Louis, Baltimore, Md. Canned oysters.....	7,815	Feb. 10	17	278
Messinger, Charles R., Toledo, Ohio. Chewing and smoking tobacco and cigarettes.....	8,082	Nov. 2	18	985
Meyer & Sons, New York, N. Y. Ointment.....	8,030	Sept. 14	18	575
Middleton, Answorth & Co., Bradford, Great Britain. Fancy yarns.....	7,860	Mar. 30	17	688
Morley Brothers, Austin, Tex. Cordial.....	7,897	May 4	17	978
Morley, Thomas, Cambridge, Mass. Medicinal preparation.....	8,042	Sept. 21	18	627
Moss Manufacturing Company, Paucatuck Village, Stonington, Conn. Damascée.....	7,966	July 13	18	65
Muhn & Brandfass, Wheeling, W. Va. Cigars.....	7,942	June 15	17	1353
National Lubricating Company, Cincinnati, Ohio. Lubricating oils and compounds.....	7,977	July 20	18	134
National Tube Works Company, Boston, Mass., and McKeesport, Pa. Metal tubing.....	7,939	June 8	17	1288
Neuchatel Asphalte Company, (limited,) London, England. Asphalte, crude or crushed or otherwise manufactured, also mastic or any other compound of asphalte with bitumen or other substance, also pavements made wholly or partly from the same.....	7,859	Mar. 30	17	688
Neuenschwander & Co., J., Monroe, N. Y. Cheese.....	7,854	Mar. 16	17	574
Newton & Co., S. S., Binghamton, N. Y. Liquid bluing.....	8,062	Oct. 12	18	798
New York Condensed Milk Company, New York, N. Y. Condensed milk.....	7,835	Feb. 24	17	402
New York Condensed Milk Company, New York, N. Y. Condensed milk.....	7,836	Feb. 24	17	402
Nichol & Co., John, New York, N. Y. White lead and zinc paint.....	7,869	Apr. 6	17	746
Nichols, Harley B. (See Nichols, Samuel B. and H. B.).....				
Nichols, Samuel B. and H. B., New York, N. Y. Spool-thread.....	8,017	Aug. 31	18	467
Oakley & Co., Jesse, New York, N. Y. Washing-powders.....	7,846	Mar. 2	17	456
Oakley & Co., Jesse, New York, N. Y. Soap.....	8,094	Nov. 16	18	1117
Obersteller, John A., Brooklyn, N. Y. Cotton embroideries.....	7,886	Apr. 27	17	912
Oelbermann & Co., E., New York, N. Y. Woolen goods, such as cassimeres, suitings, &c.....	7,798	Jan. 20	17	112
Ohmeis & Co., P. M., New York, N. Y. Lager-beer.....	7,905	May 11	17	1038
Oliver, Robert W., and J. E. Robinson, Richmond, Va. Plug-tobacco, smoking-tobacco, and cigarettes.....	8,107	Nov. 30	18	1227
Orange County Milk Association, New York, N. Y. Canned condensed milk.....	8,069	Oct. 19	18	861
Page, Booth & Co., New York, N. Y. Water-proofed carbolized paper.....	7,986	Aug. 3	18	245
Parker, John C., St. Louis, Mo. Stomach-bitters.....	7,981	July 27	18	195
Patent Plumbago Crucible Company, Battersea Works, Battersea, England. Plumbago crucibles and other plumbago ware for chemical purposes.....	7,849	Mar. 9	17	514
Peabody & Co., Henry W., Boston, Mass. Grape-sugar and glucose.....	8,102	Nov. 23	18	1182
Pearce, Frank C., New York, N. Y. Medicated lozenges or confections.....	7,913	May 18	17	1097
Peck, John E., Newton, Mass. Cotton thread.....	7,936	June 8	17	1287
Pegram, Benjamin R., Jr., New York, N. Y. Flour.....	7,927	June 1	17	1226
Pegram, Benjamin R., Jr., New York, N. Y. Flour.....	7,928	June 1	17	1226
Pegram, Benjamin R., Jr., New York, N. Y. Flour.....	8,063	Oct. 12	18	798
Pegram, Benjamin R., Jr., New York, N. Y. Flour.....	8,064	Oct. 12	18	798
Pegram, Benjamin R., Jr., New York, N. Y. Flour.....	8,076	Oct. 26	18	957
Pegram, Benjamin R., Jr., New York, N. Y. Flour.....	8,077	Oct. 26	18	957
Pegram, Benjamin R., Jr., New York, N. Y. Flour.....	8,119	Dec. 14	18	1343
Percy, Samuel R., New York, N. Y. Phosphates, hypophosphites, &c.....	7,891	May 4	17	978
Perkins, Nahum S. C., Norwalk, Ohio. Velocipede.....	7,929	June 1	17	1226
Person, Harriman & Co., A., New York, N. Y. Glove.....	7,921	May 25	17	1160
Pickhardt, Ernestine, Greenwich, Conn. Cigars.....	8,008	Aug. 17	18	362



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Pickhardt & Kuttroff, William, New York, N. Y., and Boston, Mass. Glucose.....	7,922	May 25	17	1160
Pié, Carlos, New York, N. Y. Hat and cap.....	8,012	Aug. 24	18	416
Pierra & Co., F. G., New York, N. Y. Cake or bar soap.....	8,071	Oct. 19	18	861
Piggott & Son, M. M., Boston, Mass. Mixed paints.....	7,945	June 22	17	1405
Place, William H., Providence, R. I. Wool-oil.....	8,138	Dec. 28	18	1467
Poole, Gilliam & Co., Dubuque, Iowa. Cigars, cigarettes, and smoking and chewing tobacco.....	8,124	Dec. 21	18	1410
Porrett & Sons, Joseph, Helmsboro, England. Felting.....	7,995	Aug. 10	18	304
Portway, Charles, Halstead, England. Slow-combustion stove.....	7,946	June 22	17	1405
Posen & Co., Eduard, Offenbach-on-the-Main. Certain fancy leather goods.....	7,885	Apr. 27	17	912
Post, Ezra L., New York, N. Y. Waterproofing, stuffing, and polishing oil.....	7,999	Aug. 10	18	304
Price, Maurice, New York, N. Y. Dress-shirt.....	8,003	Aug. 10	18	304
Pritz, Theodore C., Manheim, Pa. Harness-blackening.....	8,009	Aug. 17	18	362
Proctor, John C., Rochester, N. Y. Tooth-wash and tooth-powder.....	8,027	Sept. 7	18	523
Puffer & Sons, Alvin D., Boston, Mass. Soda-fountain.....	7,881	Apr. 20	17	855
Pupin, Pierre, New York, N. Y. Butter.....	8,098	Nov. 23	18	1181
Randle, William H., Baltimore, Md. Certain medicinal compounds.....	7,889	Apr. 27	17	912
Rasin & Co., R. W. L., Baltimore, Md. Guanos, superphosphates, and fertilizing compositions.....	7,872	Apr. 13	17	804
Rasin & Co., R. W. L., Baltimore, Md. Guanos, superphosphates, and fertilizing compositions.....	7,873	Apr. 13	17	804
Relief Manufacturing Company, New York, N. Y. Medical compounds.....	7,908	May 18	17	1097
Rend, W. Robert, New York, N. Y. Tonic and remedy for nervous diseases, malarial and similar affections.....	8,125	Dec. 21	18	1410
Rend, W. Robert, New York, N. Y. Remedy for catarrh and kindred affections.....	8,126	Dec. 21	18	1410
Rice, Matthias J., Boston, Mass. Box containing the apparatus for a game or toy.....	7,903	May 11	17	1038
Ridgway, Eli, Philadelphia, Pa., assignor to H. Wilkens & Co., Baltimore, Md. Smoking-tobacco, chewing-tobacco, and snuff.....	8,022	Sept. 7	18	523
Ridley & Sons, Edward, New York, N. Y. Leather and dress shoe.....	8,039	Sept. 14	18	575
Ringler, Frederick A., New York, N. Y. Electrototype-plate.....	7,949	June 22	17	1405
Robinson, John E. (See Oliver and Robinson.)				
Rogers & Britain, West Stratford, Conn. Britannia, silver-plated, and solid ware.....	7,892	May 4	17	978
Sanders & George, Baltimore, Md. Table-tea.....	7,930	June 1	17	1226
Scharff Brothers, St. Louis, Mo. Wheat-flour.....	7,987	Aug. 3	18	245
Schmitt & Koehne, New York, N. Y. Lager-beer.....	7,876	Apr. 13	17	804
Scott, George A., New York, N. Y. Brushes such as have brushing-surfaces of bristles, either natural or artificial, metallic or non-metallic, and applicable to various uses, except hair-brushes.....	8,010	Aug. 17	18	362
Seelig, Emil, Heilbrunn A. N., Württemberg, Germany. Chicory.....	8,085	Nov. 9	18	1051
Seidenberg, Herman, Brooklyn, N. Y. Cigars, cigarettes, and smoking-tobacco.....	7,943	June 15	17	1333
Shaw Stocking Company, Lowell, Mass. Hosiery.....	7,810	Feb. 3	17	202
Shepard, Norwell & Co., Boston, Mass. Blanket.....	8,040	Sept. 14	18	575
Shuman & Co., A., Boston, Mass. Boy's clothing.....	8,130	Dec. 21	18	1410
Shuman & Co., A., Boston, Mass. Boy's clothing.....	8,131	Dec. 21	18	1410
Simpson, Greenlief W., Somerville, Mass. Butter.....	7,967	July 13	18	65
Simrall & Crawford, Covington, Ky. Fine-cut chewing-tobacco.....	7,861	Mar. 30	17	688
Sinclair & Co., John, New York, N. Y. Cheese.....	8,032	Sept. 14	18	575
Sinclair & Co., John, New York, N. Y. Cheese.....	8,033	Sept. 14	18	575
Sinclair & Co., John, New York, N. Y. Cheese.....	8,034	Sept. 14	18	575
Sinclair & Co., John, New York, N. Y. Cheese.....	8,035	Sept. 14	18	575
Sinclair & Co., John, New York, N. Y. Cheese.....	8,036	Sept. 14	18	575
Sinclair & Co., John, New York, N. Y. Cheese.....	8,037	Sept. 14	18	575
Sinzheimer & Deutsch, Philadelphia, Pa. Dress-shirt.....	7,996	Aug. 10	18	304
Sinzheimer & Deutsch, Philadelphia, Pa. White dress-shirt.....	7,997	Aug. 10	18	304
Smith, John R., Oneida, N. Y. Cigars.....	7,801	Jan. 27	17	154
Société Générale de Produits Alimentaires, Paris, France. Butter.....	8,072	Oct. 19	18	861
Solomons, A. A., Savannah, Ga. Certain medicinal preparations.....	7,862	Mar. 30	17	688
Stacey, John R. (See Carver and Stacey.)				
Steinau, Abraham, Jr., Cincinnati, Ohio. Imitation-diamond jewelry.....	7,811	Feb. 3	17	202
Sterling Manufacturing Company, Baltimore, Md. Baking-powder.....	8,127	Dec. 21	18	1410
Stiner, Joseph, New York, N. Y. Java coffee.....	8,083	Nov. 2	18	985
Straiton & Storm, New York, N. Y. Cigars, cigarettes, and smoking-tobacco.....	7,904	May 11	17	1038
Straiton & Storm, New York, N. Y. Cigars, cigarettes, and smoking-tobacco.....	7,937	June 8	17	1288
Straiton & Storm, New York, N. Y. Cigars.....	7,952	June 29	17	1454
Strasburger & Co., Louis, New York, N. Y. Watch.....	7,863	Mar. 30	17	688
Strasburger & Co., Louis, New York, N. Y. Watch.....	7,864	Mar. 30	17	688
Sullivan & Burk, Detroit, Mich. Cigar.....	8,018	Aug. 31	18	467
Sussfeld, Lorsch & Co., New York, N. Y. Opera-glasses, marine glasses, field-glasses, and telescopes.....	7,976	July 20	18	134
Sutro & Newmark, New York, N. Y. Cigars, cigarettes, and chewing and smoking tobacco.....	7,816	Feb. 10	17	278
Sutro & Newmark, New York, N. Y. Cigars, cigarettes, and chewing and smoking tobacco.....	7,817	Feb. 10	17	278
Syvarth & Schleussner, Brooklyn, N. Y. Iceland-moss troches and chloroform and arnica liniment.....	7,982	July 27	18	195
Tatum & Co., Samuel C., Cincinnati, Ohio. Sewing-machine tables, clothes-wringers, fluting-machines, and sad-irons.....	8,132	Dec. 21	18	1410
Thompson, Eben F., Worcester, Mass. Salve.....	8,023	Sept. 7	18	523
Thompson & Kerr, Gallipolis, Ohio. Liniment.....	8,129	Dec. 21	18	1410
Thompson, Schott & Co., Galveston, Tex. Liver-pad.....	7,837	Feb. 24	17	402
Thornton, John, Jr., Brooklyn, N. Y. Sewing-needles.....	8,099	Nov. 23	18	1181
Thornton, John, Jr., Brooklyn, N. Y. Sewing-needles.....	8,100	Nov. 23	18	1182
Thorp & Sons, Robert, Macclesfield and Manchester, England, and New York, N. Y. Galloons, doubles, Prussian bindings, braids, shoe-laces, &c.....	7,877	Apr. 13	17	804
Thorpe, Philip, New York, N. Y. Eye-remedies.....	7,950	June 22	17	1405
Thurston Manufacturing Company, Marlborough, N. H. Sewing-machine.....	8,128	Dec. 21	18	1410
Tilden & Co., New Lebanon and New York, N. Y. Medicinal preparation.....	8,019	Aug. 31	18	467
Topping, Maynard & Hobron, New York, N. Y. Gentlemen's and boys' and ladies' and misses' soft felt hats.....	8,096	Nov. 16	18	1117
Van Dyke, John H., Port Jervis, N. Y. Soap.....	8,066	Oct. 12	18	798
Wainwright & Co., Samuel, St. Louis, Mo. Bottled lager-beer.....	8,086	Nov. 9	18	1051
Walker, Henry M., New York, N. Y. Safety-paper for checks, bank-notes, promissory-notes, drafts, bills of exchange, &c.....	7,865	Mar. 30	17	688
Walsh & James, Brooklyn, N. Y. Medicated belt.....	7,962	July 6	18	2
Warren, John D., Lyndonville, N. Y. Vegetable-soup package.....	8,079	Nov. 2	18	985
Watts, Nathaniel S., Baltimore, Md. Pickles and chowchow.....	7,968	July 13	18	66
Webb, John, Toronto, Ontario, Canada. Medicine for the cure of rheumatism and dyspepsia.....	7,826	Feb. 17	17	334
Weisert Brothers, St. Louis, Mo. Smoking-tobacco.....	7,906	May 11	17	1038
Weller & Worth, Cincinnati, Ohio. Roasted or raw peanuts.....	8,014	Aug. 24	18	416
Weller & Worth, Cincinnati, Ohio. Roasted or raw peanuts.....	8,015	Aug. 24	18	416
Wellman & Dwire, Quincy, Ill. Smoking-tobacco.....	7,955	June 29	17	1454
Wellman & Dwire, Quincy, Ill. Smoking-tobacco.....	7,956	June 29	17	1454

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White & Co., James F., New York, N. Y. Canvas paddings.....	7,914	May 18	17	1097
Whitlock, Philip, Richmond, Va. Cigars, cigarettes, smoking and chewing tobacco, and snuff.....	8,103	Nov. 23	18	1182
Whitman, Ezra B., Baltimore, Md. Plow for breaking up and cultivating the soil.....	7,852	Mar. 16	17	574
Whitney & Co., F. G., Attleborough, Mass. Chains, bracelets, collar and sleeve buttons, pins, and ear-drops.....	7,838	Feb. 24	17	402
Whittemore, Joshua, Wakefield, Mass. Crutch.....	7,923	May 25	17	1160
Wiehl & Co., D., Cincinnati, Ohio. Remedy for fever and ague.....	7,883	Apr. 27	17	912
Wilharm, Frederick, Pittsburg, Pa. Salve.....	7,884	Apr. 27	17	912
Wilkens & Co., H. (See Ridgway, Eli, assignor.)				
Williams & Co., James B., Glastonbury, Conn. Toilet and other soaps.....	8,120	Dec. 14	18	1343
Wilson & McCallay, Middletown, Ohio. Smoking and chewing tobacco.....	8,092	Nov. 16	18	1117
Wilson & McCallay, Middletown, Ohio. Smoking and chewing tobacco.....	8,093	Nov. 16	18	1117
Wilson Yeast and Manufacturing Company, (limited,) Waterloo, N. Y. Yeast-cake.....	7,990	Aug. 3	18	246
Winchester Repeating Arms Company, New Haven, Conn. Shot-gun.....	8,001	Aug. 10	18	304
Wiswall & Co., C. E., Chicago, Ill. Boot and shoe.....	8,089	Nov. 9	18	1052
Wittler, Gottlieb, St. Louis, Mo. Plug-tobacco.....	8,097	Nov. 16	18	1117
Wood, Alvin, Louisville, Ky. Whisky.....	7,821	Feb. 10	17	278
Wood, John B., Brooklyn, N. Y. Preparation to prevent the bites and stings of noxious insects.....	8,073	Oct. 19	18	861
Wood, T. W., McGregor, Iowa. Medicinal preparations.....	7,822	Feb. 10	17	278
Wood, Warwick W., Winston, N. C. Smoking and chewing tobacco.....	7,978	July 20	18	134
Woodburn Sarven Wheel Company, Indianapolis, Ind. Vehicle-wheel.....	7,893	May 4	17	978
Wright & Brother, Frank, Washington, D. C. Medicinal preparation.....	8,116	Dec. 7	18	1280
Yarbrongh & Sons, W. J., Richmond, Va. Chewing and smoking tobacco.....	7,812	Feb. 3	17	202
Yarnall Brothers, St. Louis, Mo. Pickles.....	7,831	Feb. 17	17	334
Yarnall Brothers, St. Louis, Mo. Pickles.....	7,832	Feb. 17	17	334
Zoedone Company, (limited,) London, England, and Wrexham, Wales. Aerated beverage.....	8,055	Oct. 5	18	737



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Abbey & Co., S. W., New York, N. Y. "Corbin's Remedy for Pain".....	2,342	Sept. 28	18	687
Ammen, Robert S., San José, Cal. "Ammen's Cough Syrup".....	2,224	Mar. 9	17	514
Arthur, B. F., Holyoke, Mass. "Arthur's Elixir of Sulphur".....	2,298	June 22	17	1405
Atkins, T. J. (See Thompson, Wilson, and Atkins.)				
Anmack, Benjamin F., Tom's River, N. J. "Anmacks Compound Apple Ginger".....	2,347	Oct. 5	18	737
Bailey, Arthur H., Boston, Mass. "Bailey's Original New Hampshire Cider Jelly".....	2,374	Dec. 21	18	1410
Barker, Moore & Mein, Philadelphia, Pa. "Barker's Celebrated Improved Vegetable Horse & Cat- tle Powder".....	2,205	Feb. 17	17	334
Barker, Moore & Mein, Philadelphia, Pa. "Barker's South American Fever and Ague Cure".....	2,206	Feb. 17	17	334
Barker, Moore & Mein, Philadelphia, Pa. "Barker's Brazilian Shoe Dressing".....	2,207	Feb. 17	17	334
Beers, Charles H., New Haven, Conn. "Beer's Celebrated Cough Caramels".....	2,208	Feb. 17	17	334
Bellamy, W. C., Atlanta, Ga. "Dr. Bellamy's Compound Extract Gossypium A Complete Uterine Regulator".....	2,348	Oct. 5	18	737
Beymer, A. St. Clair, Randolph, Iowa. "Beymer's Bitter Balsam and Tonic Pills".....	2,180	Jan. 6	17	2
Bolton, Joseph P., Philadelphia, Pa. "Bolton's Glycerin and Chamomile Compound".....	2,365	Nov. 9	18	1052
Boucher, Leon, St. Louis, Mo. "Gloss Paint".....	2,244	Apr. 6	17	746
Bowman & Co., C. A., Peoria, Ill. "Bowman's Pectoral Syrup".....	2,370	Dec. 14	18	1343
Boyer & Co., Philadelphia, Pa. "Cirage Onetueux".....	2,225	Mar. 9	17	514
Brewer, T. E., Macon, Ga. "Brewer's Lung Restorer".....	2,359	Oct. 26	18	957
Brow, Francis E., Fall River, Mass. "Dr. Duprez's Syrup of Tar and Glycerine Compound".....	2,352	Oct. 12	18	798
Brown Bros. & Co., Quincy, Ill. "Brown Bros. & Co.'s Crackers, Quincy".....	2,355	Oct. 19	18	861
Bucklen, Herbert E., Chicago, Ill. "Dr. King's New Discovery for Consumption and all Bronchial Affections of the Throat, Chest, and Lungs".....	2,181	Jan. 13	17	62
Bucklen, Herbert E., Chicago, Ill. "Electric Bitters".....	2,268	May 11	17	1038
Cary, H. Foster. (See Settle and Cary.)				
Chamberlain & Co., Marion, Iowa. "Owen and Chamberlain's Camphorated Hartshorn Liniment".....	2,360	Nov. 2	18	985
Chamberlain & Co., Marion, Iowa. "Owen and Chamberlain's Cough Remedy".....	2,361	Nov. 2	18	985
Chamberlain & Co., Marion, Iowa. "Colic, Cholera and Diarrhoea Remedy".....	2,363	Nov. 9	18	1052
Child, B. W., Boston, Mass. "Automatic Shading Pen Ink Compound".....	2,299	June 22	17	1405
Clark Manufacturing Company, C. B., Detroit, Mich. "Surface Gravity-Locking".....	2,262	May 4	17	978
Clarke, Frank H. (See Walter, I. F., assignor.)				
Collins Company, Collinsville, Conn. "Best Refined Cast Steel".....	2,269	May 11	17	1038
Condé, Swits, Oswego, N. Y. "Two-Threaded Non-Shrinking Wool Underwear".....	2,327	Aug. 24	18	416
Condé, Swits, Oswego, N. Y. "Faconné Underwear".....	2,328	Aug. 24	18	416
Cook & Co., Frank, Ogden, Utah Ter. "Perry's Cough Syrup".....	2,357	Oct. 19	18	861
Creagh, John B., Philadelphia, Pa. "Regalia De Preferencia Exquisitos Tabacos, Hechos Expresa- ment Para Personas De Gusto Por".....	2,176	Jan. 6	17	2
Crispin Bros., Waynesville, Ohio. "Crispin's Sure Cure," (for an Ointment).....	2,356	Oct. 19	18	861
Crittenton, Charles N., New York, N. Y. "Hale's Honey of Horehound and Tar".....	2,228	Mar. 16	17	574
Dahl, Harold A. C., Brooklyn, N. Y. "Dahl's Dyspepsia Cakes".....	2,292	June 8	17	1288
Davis, John W., Fenton, Mich. "Donaldson's Liquid Horse Alterative".....	2,234	Mar. 23	17	630
Denniston, Charles E., New York, N. Y. "Denniston's Original Worm Tea".....	2,287	June 1	17	1226
Deusner, Philip, Jr., Kokomo, Ind. "Deusner's Cash Sale Novelty Token".....	2,257	Apr. 27	17	912
Dexter, R. H., Portageville, N. Y. "R. H. Dexter's Golden Balsam".....	2,339	Aug. 31	18	467
Dorsey, Esley & Co., Halifax Court-House, Va. "Celery Bitters".....	2,258	Apr. 27	17	912
Dr. Stanley's Medical Co., Le Roy, N. Y. "Dr. Stanley's Catarrh Cure".....	2,278	May 11	17	1038
Dr. Stanley's Medical Co., Le Roy, N. Y. "Dr. Stanley's Cough Syrup".....	2,279	May 11	17	1038
Dukehart & Co., Baltimore, Md. "Niemeyer's Emulsion".....	2,281	May 18	17	1098
Ellsworth, Frank D., Corry, Pa. "U. S. P. Compound Cathartic Pills".....	2,229	Mar. 16	17	574
Ellsworth, Frank D., Corry, Pa. "Dr. J. Ellsworth Sugar-Coated Anti-Bilious and Liver Pills".....	2,239	Mar. 30	17	688
Emery, Charles G., Brooklyn, N. Y. "Charles G. Emery," (for Cigars & Tobacco).....	2,252	Apr. 20	17	855
Eriehs, Henry W. (See Heppenheimer & Maurer, assignors.)				
Fagley, Daniel W., Fagleyville, Pa. "Fagley's Vegetable Compound".....	2,336	Sept. 7	18	523
Faust, John, Poughkeepsie, N. Y. "The Great Colic Panacea".....	2,375	Dec. 21	18	1410
Felt & Hotchkiss, Watertown, N. Y. "Manufactured by the German Package Dye Co., Watertown, N. Y." (For Package Dyes).....	2,253	Apr. 20	17	855
Fletcher, George A., Milton, and J. G. Young, Jr., Boston, Mass. "Bent & Co.'s Water Crackers".....	2,270	May 11	17	1038
Fletcher, George A., Milton, and J. G. Young, Jr., Boston, Mass. "Bent & Co.'s Crackers".....	2,330	Aug. 31	18	467
Foss, E. J., St. Albans, Vt. "Foss' Vermont Catarrh Remedy".....	2,263	May 4	17	975
Foulds, A., Philadelphia, Pa. "Homo Lucis".....	2,235	Mar. 23	17	630
Fontz, Sarah J., Baltimore, Md. "Fontz's Celebrated Horse and Cattle Powders".....	2,321	Aug. 3	18	246
Franklin, J. Fred., New York, N. Y. "Old Fashioned Family Cough Cordial".....	2,362	Nov. 2	18	986
Frey, Andrew G., Lancaster, Pa. "Frey's Universal Pile Suppository".....	2,190	Jan. 20	17	112
Funk & Lackey, Bloomington, Ill. "Bradner's Honey Balsam".....	2,209	Feb. 17	17	334
Gahn, Joseph, Boston, Mass. "Jos. Gahn's Milwaukee Export Lager Beer".....	2,282	May 18	17	1098
Gandy, Maurice, Liverpool, England. "Gandy's Patent American Cotton Belting".....	2,331	Aug. 31	18	467
Gandy, Maurice, Liverpool, England. "Gandy's Patent Cotton Belting".....	2,332	Aug. 31	18	467
Gandy, Maurice, Liverpool, England. "Gandy's Main Driving Belt".....	2,333	Aug. 31	18	467
Gandy, Maurice, Liverpool, England. "Gandy's Patent American Cotton Machine Belting".....	2,334	Aug. 31	18	467
Garratt, Elida W. (See Whittier and Garratt.)				
Geer, Sidney L., Norwich, Conn. "Geer's Carbolized Tooth Powder".....	2,246	Apr. 13	17	804
Gentian Bitters Company, East New York, N. Y. "G. B. Liniment".....	2,250	Apr. 27	17	912
Gentian Bitters Company, East New York, N. Y. "Gentian Bitters".....	2,260	Apr. 27	17	912
Globe Medicine Company, Loudon, Tenn. "Dr. Mathew Nelson's Anti-Syphilitic Compound".....	2,264	May 4	17	978
Goldsmith, Henry D., New York, N. Y. "Gold Solution Warranted to Contain Pure Gold".....	2,271	May 11	17	1038



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Goldsmith, Henry D., New York, N. Y. "Special Notice to Jewelers, Metal Workers and others".....	2,272	May 11	17	1038
Goldsmith, Henry D., New York, N. Y. "Fire Proof Card Board and Paper, for Brazing, Solder- ing, &c."	2,273	May 11	17	1038
Gore Bros. & Dykman, New York, N. Y. "Imported Bertell Hat".....	2,349	Oct. 12	18	793
Grauley, Henry B., Philadelphia, Pa. "Grauley's Pile Ointment".....	2,194	Jan. 27	17	151
Gray, James R., Ayer, Mass. "Gray's Solidified Glycerine".....	2,177	Jan. 6	17	2
Grindle & Son, Spring Valley, N. Y. "Dr. Grindle & Sons Consumptive Pulmonary Powders".....	2,195	Feb. 3	17	202
Hall, Albert B. (See Williams and Hall.)				
Hall & Son, B. F., Philadelphia, Pa. "Hall's Combined Extract of Rye, Refined Rock Candy, and Fluid Ext. of Red Root"	2,214	Feb. 24	17	403
Hanlen & Co., E. A., New York, N. Y. "Meldrum's Deodorizer".....	2,248	Apr. 13	17	804
Hart, Seth, Harmar, Ohio. "Dr. Seth Hart's Croup Syrup".....	2,364	Nov. 9	18	1052
Hastings, Benjamin, San Francisco, Cal. "Hastings Great Dyspeptic Panacea".....	2,371	Dec. 14	18	1343
Haswell, William S., Georgetown, Colo. "Haswells Blood and Liver Pills".....	2,350	Oct. 12	18	798
Hegeman, J. Niven, New York, N. Y. "Hegeman & Co. Chemists and Druggists".....	2,183	Jan. 13	17	62
Henshaw, Edward, Boston, Mass. "People's Dressing—Edward Henshaw, Sole Agent".....	2,182	Jan. 13	17	62
Heppenheimer & Maurer, assignors to H. W. Erichs, New York, N. Y. "Reina Maria Cristino".....	2,245	Apr. 6	17	746
Hetherington, John E., New York, N. Y. "Tropic Fruit Laxative".....	2,226	Mar. 9	17	514
Hetherington, John E., New York, N. Y. "Hetherington's Tropic Fruit Laxative".....	2,274	May 11	17	1038
Higgins, Charles M., Brooklyn, N. Y. "American Drawing Ink".....	2,230	Mar. 16	17	574
Hill, Lod T., Ninety-Six, S. C. "Hill's Hepatic Panacea or Liver Medicine For Diseases of the Liver, Dyspepsia, Constipation, &c."	2,184	Jan. 13	17	62
Hill, Lod T., Ninety-Six, S. C. "Hill's Bone Set Bitters".....	2,185	Jan. 13	17	62
Hilton, George P., Glendale, S. C. "Dr. Hilton's Iodoform Liniment and Antiseptic Dressing".....	2,236	Mar. 23	17	630
Hirseman, Gotthard, Brooklyn, N. Y. "Prepared Daphne Leaf" (For Medicated Plasters).....	2,197	Feb. 10	17	278
Hoagland, Henry V., New York, N. Y. "Ren Vinum or Kidney Wine".....	2,319	July 27	18	196
Hodge, George E., New York, N. Y. "Amalgam".....	2,367	Nov. 30	18	1227
Hoffman & Co., G. W., Indianapolis, Ind. "Hoffman's Popular Injection".....	2,275	May 11	17	1038
Housskeeper, B., Philadelphia, Pa. "Dr. Housskeeper's Anodyne Expectorant, &c."	2,249	Apr. 13	17	804
Hubbard & Co., P. W., Farmington, Me. "Hubbard's Home Favorite Cough Syrup".....	2,265	May 4	17	978
Hubbard & Co., P. W., Farmington, Me. "The Peoples' Favorite Tonic Bitters".....	2,358	Oct. 26	18	957
Hutaff, Henry, Wilmington, N. C. "Infallible Liniment for Man and Beast".....	2,247	Apr. 13	17	804
Inwood, D. A., East Somerville, Mass. "Inwood's Hair Producer".....	2,337	Sept. 14	18	575
Jevno, Christian, Chicago, Ill. "Reasons why it is to your interest to buy the Gold Mandarin Tea".....	2,346	Oct. 5	18	737
Jones, Eli L., Battle Creek, Mich. "Jones' Liver Granules".....	2,307	July 13	18	66
Keeley, Leslie E., Dwight, Ill. "Dr. L. E. Keeley's Double Chloride of Gold Cure for Drunkenness".....	2,324	Aug. 10	18	304
Kenney, William F., South Yarmouth, Mass. "Kenney's Speedy Relief".....	2,255	Apr. 20	17	855
Kerr Brothers, Gallipolis, Ohio. "Kerr's Dandelion and Kidneywort Pills".....	2,377	Dec. 28	18	1467
Kilmer, S. Andral, Binghamton, N. Y. "Dr. Kilmer's Complete Female Remedy".....	2,353	Oct. 12	18	798
Knight, H. Williston, New York, N. Y. "1 Grosse Boutons Tresse Made by W. K. & Co."	2,276	May 11	17	1038
Knowlton, George K., Hamilton, Mass. "Knowlton's Prepared Tapioca, for Puddings and Pies".....	2,227	Mar. 9	17	514
Kraft, John, Baltimore, Md. "Krafts Compound Petrolia Cough Lozenges".....	2,240	Mar. 30	17	688
Kropp, Henry, Jr., Washington, D. C. "Kropp's Salve Cure for Scalds, Burns, Bruises, Cuts, Piles, etc"	2,301	June 22	17	1405
Landis, Simon M., New York, N. Y. "Evaporation Cure Lotion".....	2,261	Apr. 27	17	912
Lathrop, Albert W., Watertown, Mass. "Harness Dressing".....	2,341	Sept. 28	18	687
Lippincott, Joseph P., Mount Holly, N. J. "Lippincott's Dyspepsia Tonic".....	2,343	Sept. 28	18	687
Lloyd, Supplee & Walton, Philadelphia, Pa. "Pennsylvania Lawn Mower".....	2,215	Feb. 24	17	402
Lloyd, Supplee & Walton, Philadelphia, Pa. "Pennsylvania Lawn Mower".....	2,216	Feb. 24	17	402
Lokerson, Abraham S., Freehold, N. J. "Nature's Best Friend".....	2,266	May 4	17	978
Mattson, Morris, New York, N. Y. "Mattson's Self-Filling Water-Bag for the Neck".....	2,340	Sept. 28	18	687
Mattson, Morris, New York, N. Y. "Mattson's Self-Filling Water-Bag for the Neck".....	2,344	Sept. 28	18	687
Mauger & Petrie, Victor E., New York, N. Y. "The Victor Baby Food".....	2,231	Mar. 16	17	574
Maurice, Alfred, New York, N. Y. "Hoo-Lah".....	2,217	Mar. 2	17	456
McGlothlin, Harvey M., Pat's Store, Va. "Farmers' Extra Blood Purifying Bitters".....	2,368	Dec. 7	18	1230
Michelena, Guillermo, Brooklyn, N. Y. "Doctor Guillermo Michelena's Genuine Blood Purifying Syrup".....	2,366	Nov. 9	18	1052
Miller, Joseph C., Newark, N. J. "Miller's Unexcelled Shampooing Preparations for Male and Female".....	2,237	Mar. 23	17	630
Minnich & Co., Bedford, Pa. "Dr. Richard's Worm Syrup".....	2,320	July 27	18	196
Mitchell, Robert H., Philadelphia, Pa. "Mexican Blood and Liver Purifier".....	2,318	July 27	18	196
Montague, Patrick H., St. Louis, Mo. "P. H. Montague's Diarrhoea Specific".....	2,323	Aug. 3	18	246
Moore, William B., East Saginaw, Mich. "Camphorated Arnica".....	2,326	Aug. 17	18	362
Morris, David D., Alpena, Mich. "Morris' Rheumatic Radical Cure".....	2,267	May 4	17	978
Morse, Charles H., Holliston, Mass. "A New Discovery Morse's Dyspepsia Cure".....	2,277	May 11	17	1038
Murphey, Francis, Westerly, R. I. "Dr. Murphey's Elixir of Life".....	2,210	Feb. 17	17	334
Murphy & Co., Newark, N. J. "Jet Rubbing Varnish".....	2,378	Dec. 28	18	1467
National Bureau of Engraving and Manufacturing Company, Burlington, N. J., and Philadelphia, Pa. "Owl Match".....	2,288	June 1	17	1226
National Bureau of Engraving and Manufacturing Company, Burlington, N. J. "The A Brand Tomato".....	2,294	June 15	17	1353
National Thread Company, Mansfield, Conn. "Paisley Machine Thread, 200 Yds.".....	2,188	Jan. 13	17	62
National Thread Company, Mansfield, Conn. "Parker Bros.' Machine Thread, 200 Yds.".....	2,189	Jan. 13	17	62
National Thread Company, Mansfield, Conn. "Paisley Silk and Thread Cos.' Extra Soft Finish".....	2,192	Jan. 20	17	112
National Tube Works Company, Boston, Mass., and McKeesport, Pa. "Homogeneous Metal".....	2,293	June 8	17	1288
National Tube Works Company, Boston, Mass., and McKeesport, Pa. "Boston" (for metal tubing). New York Sanitary Company, New York, N. Y. "New York Sanitary Company—Protect The Liv- ing, Preserve the Dead." (For a preservative fluid for treating Corpses).....	2,310	July 20	18	134
Newland, E. M., Madison, Wis. "Laevensohn's Russian Pulmonic Syrup".....	2,178	Jan. 6	17	2
Nichols, Mathew S., Plainfield, Conn. "Nichols' Carbolic Dentifrice".....	2,198	Feb. 10	17	273
Nichols, Mathew S., Plainfield, Conn. "Nichols' Carbolic Dentifrice".....	2,186	Jan. 13	17	62
Oliver & Robinson, Richmond, Va. "Raleigh Plng, Smoking Tobacco".....	2,369	Dec. 7	18	1230
Pabke, Alexander, Springfield, Mass. "Pabke's Iron Bitters".....	2,335	Aug. 31	18	467
Packer, D. F., Mystic River, Conn. "D. F. Packer's Camphor Gum Soap".....	2,283	May 18	17	1098
Page, Booth & Co., New York, N. Y. "Page & Rodgers' Patent Water-Proofed Carbolized Paper".....	2,322	Aug. 3	18	246
Paine, Rufus J., Mansfield, Mass. "Paine's Sewing Machine Oil".....	2,372	Dec. 14	18	1343
Palmer, Charles W., New Haven, Conn. "Palmer's Hair Restorer and Tonic".....	2,311	July 20	18	134
Parker, John C., St. Louis, Mo. "Parker's Celebrated Stomach Bitters".....	2,300	June 22	17	1405
Parry & Co., San Francisco, Cal. "Dulco A Palatable Castor Oil".....	2,304	July 6	18	2
Patterson & Tolliver, Dallas, Tex. "Patterson's Peach Stone Liniment".....	2,289	June 1	17	1226
Patton, John N., New York, N. Y. "Swan's Anthromidrosis".....	2,211	Feb. 17	17	334
Pinckney, Emma J., New York, N. Y. "Arnicated Extract of Witch Hazel (Hamamelis Virginica)".....	2,218	Mar. 2	17	456
Pinckney, Emma J., New York, N. Y. "Cocoa Beef Tonic &c.".....	2,219	Mar. 2	17	456
Pinckney, Emma J., New York, N. Y. "Genuine Extract of Witch Hazel (Hamamelis Virginica)".....	2,220	Mar. 2	17	456
Pinkham, William H., Lynn, Mass. "Lydia E. Pinkham's Blood Purifier".....	2,234	May 18	17	1038

*Alphabetical list of registers of labels—Continued.*

Name, residence, and title.	No.	Date.	Official Gazette.	
			Vol.	Page.
Potter, John E., Providence, R. I. "Potter's Vermicide Paste".....	2,221	Mar. 2	17	456
Price & Co., Walter, Westerly, R. I. "Dr. H. Bush's Compound Tolu Syrup".....	2,212	Feb. 17	17	334
Rice, Edward, Providence, R. I. "Dr. Kelbitoff's Russian Anticontagion Packet".....	2,187	Jan. 13	17	62
Rice, Matthias J., Boston, Mass. "The Gem Puzzle".....	2,250	Apr. 13	17	804
Richards, De Forest, Camden, Ala., and W. E. Richards, Flushing, N. Y. "Barnes' Gold and Silver Polish".....	2,305	July 6	18	2
Richards, William E. (See Richards, De Forest and W. E.)				
Rider, Frederick, San Francisco, Cal. "The Oriental Hair Gloss".....	2,256	Apr. 20	17	855
Robinson, Joseph C., Titusville, Pa. "The Native Liniment Manufactured from Seneca Oil".....	2,302	June 22	17	1405
Roper, Thomas E. and W., Buffalo, N. Y. "Roper's Soap".....	2,203	Feb. 10	17	278
Roper, William. (See Roper, Thomas E. and W.)				
Ryckman, Garrett E., Brocton, N. Y. "Brocton Wines".....	2,191	Jan. 20	17	112
Schlotterbeck, Augustus G., Portland, Me. "Schlotterbeck's Double or Concentrated Effervescent Solution of Citrate Magnesium".....	2,199	Feb. 10	17	278
Schumacher & Ettinger, New York, N. Y. "Rip Van Winkle".....	2,285	May 25	17	1160
Searles, Sarah W., New York, N. Y. "Dr. McFarren's Infallible Remedy, for Chorea, St. Vitus Dance, &c".....	2,290	June 1	17	1226
Seebach, B. G., Peru, Ill. "Moth Killer," (a Compound for destroying Insects).....	2,308	July 13	18	66
Sennewald, Ferdinand W., St. Louis, Mo. "Prescription No. 4,000 J. C. Peiper's Rheumatic Cure".....	2,291	June 1	17	1226
Settle, George E., and H. F. Cary, Saratoga Springs, N. Y. "Saratoga Geyser Spring Water".....	2,295	June 15	17	1353
Shedd, William D., Jamestown, N. Y. "Little Mandrake Pills".....	2,241	Mar. 30	17	688
Smith, Elam G., Kentland, Ind. "Smith's Cough Syrup".....	2,338	Sept. 21	18	627
Smith, Elam G., Kentland, Ind. "Smith's Little Cathartic Pellets".....	2,339	Sept. 21	18	627
Smith, William, trustee, Pittsburg, Pa. "United Cigar Makers League" (for Cigars, Cigarettes, and Tobacco).....	2,351	Oct. 12	18	798
Soltmann, E. G., New York, N. Y. "Par Excellence Drawing and Tracing Paper".....	2,376	Dec. 21	18	1410
Specific Medicine Company, Buffalo, N. Y. "Anti-Bilious Tea".....	2,317	July 27	18	196
Sponogle, J. Dorsey, Carlin, Nev. "Dr. Aitkens' California Tar Weed Cough Syrup".....	2,200	Feb. 10	17	278
Spring, Henry H., Titusville, Pa. "Spring's Positive Cure for Catarrh".....	2,303	June 29	17	1454
Staehele, Louis C., Newark, N. J. "Staehele's Corn Cure".....	2,296	June 15	17	1353
Staples & Salisbury, New York, N. Y. "Luminous Relievo Card Signs".....	2,297	June 15	17	1353
Stark, A. H., Nevada, Iowa. "Distilled Sage Cure for Catarrh".....	2,232	Mar. 16	17	574
Steketee, George G., Grand Rapids, Mich. "Steketee's Worm Destroyer".....	2,222	Mar. 2	17	456
Stiles & Givens, Fond du Lac, Wis. "Dr. Chambers' Kidney Cure or Life Invigorator".....	2,223	Mar. 2	17	456
Stone, Alvin W., San Quentin, Cal. "Form for Bank Checks, Drafts, and any Written Paper Regarding the Receipt or Payment of Money".....	2,312	July 20	18	134
Strong, C. H., Chicago, Ill. "Robertson's Infallible Cure".....	2,233	Mar. 16	17	574
Stubbs, Charles D., Stratford, Conn. "De Veaux's Fever and Ague Eradicator".....	2,242	Mar. 30	17	688
Stubbs, Charles D., Stratford, Conn. "De Veaux's Fever and Ague Eradicator".....	2,243	Mar. 30	17	688
Talbot, Josiah R., Bristol, R. I. "Topical RepARATION".....	2,238	Mar. 23	17	630
Tallcot, George, Brooklyn, N. Y. "The Magic Cure For Chills, Fevers, and all other forms of Malarial Diseases".....	2,201	Feb. 10	17	278
Taylor, Harry B., Philadelphia, Pa. "Sausman's Cough Mixture".....	2,202	Feb. 10	17	278
Tetrick & Co., C. M., Kansas City, Mo. "Indian Herb Bitters".....	2,196	Feb. 3	17	202
Thompson, George C., E. K. Wilson, and T. J. Atkins, Paducah, Ky. "Busby's Improved System Invigorant".....	2,345	Sept. 23	18	687
Thorn & Son, I. N., Brattleborough, Vt. "Compound Extract of Hops. The Best and Cheapest Tonic Known".....	2,179	Jan. 6	17	2
Todd, Albert M., Nottawa, Mich. "Expositions Internationales Grand Prize Medals "Crystal White" Oil of Peppermint".....	2,280	May 11	17	1038
Trott, C. H., Boston, Mass. "Trott's English Waterproof Blacking".....	2,309	July 13	18	66
Upshur, Thomas H. W., Carrollton, Miss. "Yellow-Jack Preventive Bitters".....	2,213	Feb. 17	17	334
Waltemeyer, Jacob, Baltimore, Md. "Golden Vine Peas".....	2,254	Apr. 20	17	855
Walter, I. F., assignor to F. H. Clarke, Allentown, Pa. "The Great Universal Remedy for Corns and Bunions".....	2,313	July 20	18	134
Warren, John D., Lyndonville, N. Y. "Warren's Vegetable Soup Package".....	2,251	Apr. 13	17	804
Washburn, Edward G., Springfield, Mass. "E. G. Washburn's Deodorizer and Disinfectant".....	2,325	Aug. 17	18	362
Whittier, Russel B. (See Whittier and Garratt.)				
Whittier, Smith and R. B., and E. W. Garratt, Chicago, Ill. "Dr. S. Whittier's Cocoa Liniment".....	2,204	Feb. 10	17	278
Whittlesey, Lydia F., Chicago, Ill. "Cincho-Troche".....	2,193	Jan. 20	17	112
Williams, Charles C., and A. B. Hall, Indianapolis, Ind. "Milliere's Liquid Powder".....	2,306	July 6	18	2
Williams, John R., Stockton, Cal. "Williams' Hoof Ointment".....	2,373	Dec. 14	18	1343
Wilson, E. K. (See Thompson, Wilson, and Atkins.)				
Woods & Co., Charles, Danville, Pa. "Chas. Woods & Co.'s Pilé Ointment".....	2,314	July 27	18	195
Woods & Co., Charles, Danville, Pa. "Chas. Woods & Co.'s Celandine Ointment".....	2,315	July 27	18	196
Woods & Co., Charles, Danville, Pa. "Chas. Woods & Co.'s Liniment Camphor Cream".....	2,316	July 27	18	196
Woolfolk, Lucien B., Tracy, Minn. "The Tracy Inhalant Catarrh Cure".....	2,286	May 25	17	1160
Yarnall Brothers, St. Louis, Mo. "Bread Raiser" (for a Baking Powder).....	2,354	Oct. 12	18	798
Young, James G., Jr. (See Fletcher and Young.)				

# DISCLAIMERS.

Name, residence, and invention.	No.	Filed.	Official Gazette.	
			Vol.	Page.
Bracher, Thomas W., New York, N. Y. Sweat-band for hats and caps.....	214,489	May 12, 1880	17	1160
Campbell, Augustine, Metuchen, N. J., Nathaniel C. and Alpheus C. Locko, Salem, Mass., assignees. Self-regulating press-re-valve. (Reissue).....	6,264	Aug. 21, 1880	18	523
Cochrane, Thomas F., La Fayette, Ind., Rodney Masen and William Warder, assignees; disclaimer filed by The Consolidated Middlings Purifier Company. Machine for bolting flour. (Reissue.) (Division B).....	6,595	Dec. 31, 1879	17	2
Dickerson, M. J., Titusville, Pa., and Jacob Stuber, Utica, N. Y.; disclaimer filed by Henry H. Doubleday, Washington, D. C. Tubular apparatus for deep wells.....	50,919	Dec. 29, 1879	17	62
Dutton, Rufus, Yonkers, and Alfred Ternquist, New York, N. Y.; said Ternquist assignor to said Dutton. Harvesting-machine.....	212,303	July 17, 1880	18	196
Frederici, Carl, New York, N. Y.; disclaimer filed by Elizabeth, John, and George Matthews. Process for preparing glass, &c., for etching.....	154,032	Feb. 13, 1880	17	402
Harrington, John R., George W. Chipman, Boston, Mass., assignee; disclaimer filed by John R. Harrington and Edward H. Bailey, trustees. Carpet-lining. (Reissue).....	2,415	Nov. 2, 1880	18	1118
Hawkes, Gilbert, Lynn, Mass. Manufacture of boots and shoes. (Reissue).....	2,807	Aug. 9, 1880	18	362
Jordan, Lucius, and Leander E. Smith, Collins Company, Collinsville, Conn., assignee; disclaimer filed by said assignee. Wrench. (Reissue).....	5,294	Aug. 9, 1880	18	362
Lachenmeyer, August, Narrowsburg, N. Y. Fining-shavings for beer.....	216,868	Jan. 24, 1880	17	334
Palmer, Isaac H., Lodi, Wis. Self-adjusting pump for windmills.....	152,407	Mar. 18, 1880	17	688
Prenty, Joel H., and Solon S. Sprague, Worcester, Mass. Burr-roll for loom-templates.....	226,548	Apr. 17, 1880	17	912
Salisbury, George P., and Charles S. Wells, Winchester Repeating Arms Company, New Haven, Conn., assignee; disclaimer filed by the aforesaid assignee. Tool for heading cartridge-shells.....	170,772	July 22, 1880	18	246
Shireman, Joseph H., York, Pa., James E. Wisner, Friendship, N. Y., assignee; disclaimer filed by said assignee. Horse hay-rake. (Reissue).....	7,988	Dec. 13, 1880	18	1410
Thompson, William, New York, N. Y., and Samuel Thompson, Baltimore, Md.; disclaimer filed by The New York Coffee Polishing Company, (limited.) Cleaning and polishing coffee.....	111,403	Apr. 21, 1880	17	1098
Wilson, William J., Wilson Packing Company and Libby, McNeill & Libby, Chicago, Ill., assignees. Preserving and packing cooked meats. (Reissue).....	6,370	Oct. 18, 19, 1880	18	1117

# ALPHABETICAL LIST OF INVENTIONS.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Specification.	Drawing.	Volume.	Page.
Accordion.....	F. Zogbaum.....	223,461	Jan. 13	313	83, 84	17	68
Accountant-instrument. Mechanical.....	H. Johnson.....	234,875	Nov. 30	1321	356	18	1235
Acid. Apparatus for burning sulphur to produce sulphuric.....	H. Glover.....	234,025	Nov. 2	249	68	18	1027
Acid. Apparatus for the manufacture of nitric.....	P. Marcelin.....	227,027	Apr. 27	1056	293	17	953
Acid. Apparatus for the recovery of waste sulphuric.....	A. G. Sébillot.....	230,501	July 27	1206	{ 339 340 }	18	219
Acid from sludge-acid. Recovering sulphuric.....	E. Clark.....	232,685	Sept. 28	972	267	18	707
Acid. Manufacture of anhydrous sulphuric.....	J. A. W. Wolters.....	223,571	Jan. 13	448	.....	17	91
Acid. Pulverulent preparation of phosphoric.....	E. N. Horsford.....	229,705	July 6	221	.....	18	41
Acid. Pulverulent preparation of phosphoric.....	E. N. Horsford.....	230,874	Aug. 10	334	.....	18	309
Adding-machine.....	C. P. Sullivan.....	228,416	June 1	283	80	17	1272
Addressing-machine.....	W. W. Ames.....	235,485	Dec. 14	529	152	18	1378
Addressing-machine.....	F. A. Darling.....	236,001	Dec. 28	1170	325	18	1499
Addressing-machine.....	T. A. Edison.....	230,621	Aug. 3	29	8	18	251
Addressing-machine.....	E. F. Pernot.....	226,781	Apr. 20	743	208	17	891
Addressing-machine.....	W. E. Woodruff, Jr.....	224,064	Feb. 3	111	32	17	222
Adjustable bracket.....	C. A. Blessing.....	224,863	Feb. 24	1053	300	17	422
Adjustable bracket.....	C. E. Kells, Jr.....	228,645	June 8	587	155	17	1327
Adjustable chair.....	M. F. Bell.....	226,475	Apr. 13	380	108	17	822
Adjustable chair.....	J. M. Taggart.....	231,631	Aug. 24	1185	{ 331 332 }	18	458
Adjustable seat, desk, &c.....	J. S. Robinson.....	228,840	June 15	852	232	17	1375
Advertising. Automatic device for.....	R. M. Westlake.....	231,204	Aug. 17	717	201	18	376
Advertising checker-board.....	H. P. Eysenbach.....	228,330	June 1	198	55	17	1259
Advertising device.....	E. W. Taylor.....	227,073	Apr. 27	1118	{ 307 308 }	17	962
Advertising device.....	A. S. Wetmore.....	233,958	Nov. 2	163	42	18	1013
Aerator.....	H. Kupfer.....	232,980	Oct. 5	222	60	18	775
Aerial apparatus.....	F. W. Brearey.....	234,947	Nov. 30	1408	378	18	1249
Aerial navigation.....	J. F. Mackenzie.....	235,792	Dec. 21	895	250	18	1446
Aerial navigation. Vessel and machinery for.....	A. L. Blackman.....	224,510	Feb. 17	620	180	17	336
Aeriform fluids. Apparatus for mixing.....	J. F. Barker.....	234,904	Nov. 30	1358	365	18	1241
Aging and purifying spirituous liquors. Apparatus for.....	F. L. Wood.....	235,840	Dec. 21	957	266	18	1457
Aging liquors.....	J. M. Morrison.....	229,269	June 29	1332	366	17	1461
Aging liquors. Apparatus for.....	J. H. Thierman.....	231,377	Aug. 17	901	253	18	406
Aging liquors. Apparatus for.....	J. C. Vetter.....	223,558	Jan. 13	426	114	17	88
Aging liquors. Apparatus for.....	A. L. Wood.....	229,223	June 22	1275	351	17	1445
Aging liquors. Process and apparatus for.....	J. L. Martin.....	229,542	July 6	45	12	18	15
Agricultural boiler.....	D. Felgar.....	225,814	Mar. 23	906	286	17	657
Agricultural boiler.....	J. W. Hudson.....	229,891	July 13	448	124	18	83
Agricultural forks. Machine for manufacturing.....	J. C. Richardson.....	223,246	Jan. 6	45	11	17	10
Agricultural implement.....	W. A. Chapman.....	225,688	Mar. 23	843	245	17	632
Agricultural implement.....	J. B. Gracey.....	230,414	July 27	1100	310	18	201
Air and gases. Obtaining motive power from.....	T. M. Fell.....	224,772	Feb. 24	947	270	17	405
Air. Apparatus for purifying and cooling.....	J. Edwards.....	226,908	Apr. 27	911	254	17	930
Air. Apparatus for separating the water of condensation from compressed.....	S. B. Hunt.....	223,648	Jan. 20	542	146	17	115
Air. Apparatus for using compressed.....	C. E. Buell.....	234,751	Nov. 23	1160	313	18	1202
Air-brake.....	L. Glenn.....	234,179	Nov. 9	434	117	18	1066
Air-brake cylinders. Piston for.....	W. Loughridge.....	234,134	Nov. 9	380	104	18	1057
Air-brake for railway-trains.....	J. Hall.....	231,311	Aug. 17	828	233	18	395
Air-compressing apparatus.....	R. M. Catlin.....	231,007	Aug. 10	478	136	18	331
Air-compressing apparatus. Hydraulic.....	J. M. Bois.....	227,877	May 25	930	{ 266 267 }	17	1162
Air-compressing engine.....	E. Hill.....	229,821	July 13	371	102	18	71
Air-compressor.....	W. R. Eckart.....	224,081	Feb. 3	130	37	17	224
Air-compressor.....	J. H. Parkinson.....	225,161	Mar. 2	203	57	17	491
Air-compressor.....	J. B. Pitchford.....	233,432	Oct. 19	804	222	18	826
Air-compressor.....	H. Richmann.....	229,468	June 29	1576	436	17	1494
Air-compressor.....	E. A. Rix.....	235,296	Dec. 7	278	78	18	1327
Air-compressor.....	E. A. Rix.....	235,816	Dec. 21	922	257	18	1451
Air-compressor.....	H. C. Sergeant.....	233,881	Nov. 2	61	17	18	997
Air-compressor.....	J. M. Stockman.....	234,733	Nov. 23	1140	307	18	1199
Air-compressor and water-lifter.....	L. B. Lawrence, W. P. Hammon, and A. G. Strawbridge.....	226,918	Apr. 27	926	258	17	932
Air-compressors and water-pumps. Automatic balance attachment for delivery-valves of.....	S. B. Connor and H. Dods.....	232,939	Oct. 5	171	45	18	766
Air-cooling and purifying apparatus.....	C. Seyler.....	231,937	Sept. 7	66	16	18	535
Air-cooling apparatus.....	J. Chellew.....	233,072	Oct. 12	31	94	18	801
Air-cooling apparatus.....	O. Kropff.....	227,796	May 18	821	232	17	1132
Air-cooling apparatus.....	W. S. Wilkinson.....	225,192	Mar. 2	237	66	17	497
Air-cooling process and apparatus.....	L. Allen.....	231,886	Sept. 7	5	1	18	525
Air-cooling process and apparatus.....	R. Portner and B. E. J. Eils.....	229,750	July 6	276	78	18	49



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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. E.	Vol.	Page.
Air-cylinders. Relief-valve for.....	J. Hoyt.....	223,532	June 8	445	121	17	1306
Air-engine .....	F. E. B. Beaumont.....	232,438	Sept. 21	689	{ 190 191 }	18	652
Air-engine .....	J. Ericsson.....	226,052	Mar. 30	1289	363	17	717
Air-engine .....	E. Thuemmler.....	232,660	Sept. 28	943	{ 259 260 }	18	702
Air-engine .....	E. Thuemmler.....	233,125	Oct. 12	412	113	18	812
Air-engine .....	J. A. Woodbury, J. Merrill, G. Pat- ten, and E. F. Woodbury.....	228,712	June 8	650	{ 176 177 }	17	1337
Air-engine .....	J. A. Woodbury, J. Merrill, G. Pat- ten, and E. F. Woodbury.....	228,713	June 8	656	178	17	1338
Air-engine .....	J. A. Woodbury, J. Merrill, G. Pat- ten, and E. F. Woodbury.....	228,714	June 8	659	179	17	1338
Air-engine .....	J. A. Woodbury, J. Merrill, G. Pat- ten, and E. F. Woodbury.....	228,715	June 8	661	{ 179 180 }	17	1339
Air-engine .....	J. A. Woodbury, J. Merrill, G. Pat- ten, and E. F. Woodbury.....	228,716	June 8	663	{ 180 181 }	17	1339
Air-engine heater.....	J. A. Woodbury, J. Merrill, G. Pat- ten, and E. F. Woodbury.....	228,717	June 8	667	182	17	1340
Air-medicating apparatus.....	H. R. Fowler.....	229,393	June 29	1489	410	17	1481
Air. Method of and apparatus for heating, conduct- ing, and ntlizing	J. T. Chaffee and G. Priest.....	230,107	July 20	708	198	18	133
Air. Pneumatic apparatus for economizing com- pressed	S. B. Hunt.....	223,649	Jan. 20	543	146	17	116
Air-purifying apparatus.....	F. A. Bruns.....	229,374	June 29	1469	404	17	1479
Air-tight can.....	C. L. Betts.....	232,925	Oct. 5	156	42	18	764
Air-warmer. Kerosene.....	T. J. Dennis.....	234,117	Nov. 9	362	100	18	1054
Alarm: See Burglar-alarm. Letter-box alarm. Door-alarm. Letter-holder alarm. Electric alarm. Low-water alarm. Fire-alarm. Pressure-gage alarm. Knob-alarm. Telephone-line alarm.							
Alarm-bolt.....	S. Poole.....	223,384	Jan. 6	199	52	17	36
Alarm-lock.....	H. Hoffmann.....	232,497	Sept. 21	758	210	18	664
Alarm-lock.....	W. H. Pearce.....	224,791	Feb. 24	977	277	17	409
Alarm-lock.....	C. W. Ziegler.....	233,172	Oct. 12	465	128	18	822
Album.....	J. W. H. Donbler.....	228,451	June 8	343	95	17	1292
Album, &c., clasp.....	C. Posen.....	235,016	Nov. 30	1492	401	18	1264
Album-clasp.....	S. Posen.....	223,756	Jan. 20	658	177	17	134
Album-clasp.....	L. Verpabl and H. Pohl.....	233,174	Oct. 12	467	129	18	822
Albums. Leaf-support for.....	A. Foerste.....	231,661	Aug. 31	1233	347	18	473
Alcoholic spirits. Manufacturing.....	J. R. Gladney.....	224,419	Feb. 10	314	.....	17	307
Alcoholic vapors in water. Apparatus for collecting.....	M. Cziener.....	225,349	Mar. 9	441	128	17	543
Alkali ball. Coated caustic.....	A. Mendleson.....	229,161	June 22	1215	.....	17	1436
Alkaline solutions. Concentrating.....	H. Burgess.....	229,090	June 22	1141	311	17	1425
Alloy for coating metals.....	J. B. Jones.....	234,482	Nov. 16	816	.....	18	1139
Alloy. Manufacture of nickel-zinc.....	T. Fleitmann.....	225,977	Mar. 30	1202	.....	17	703
Alloy. Metallic.....	C. J. A. and G. A. Dick.....	228,615	June 8	550	.....	17	1321
Alloy plating. Aluminium.....	J. S. Howard.....	228,900	June 15	916	.....	17	1384
Alumina, bauxite, &c. Purification of.....	W., T., and J. Chadwick and J. W. Kynaston.....	228,867	June 15	883	.....	17	1379
Alumina or alum. Making and purifying sulphate of.....	W., T., and J. Chadwick and J. W. Kynaston.....	230,106	July 20	707	.....	18	133
Aluminium and gold alloy. Electro-deposition of.....	G. Linsenmayer.....	231,064	Aug. 10	540	.....	18	341
Aluminous cake. Manufacture of.....	G. F. Bihn and R. Heerlein.....	233,916	Nov. 2	102	.....	18	1003
Aluminous cake. Manufacture of.....	C. V. Petraeus.....	225,300	Mar. 9	386	.....	17	534
Aluminous cake. Manufacture of.....	C. V. Petraeus.....	225,301	Mar. 9	387	.....	17	534
Aluminous cake. Manufacture of white.....	G. F. Bihn.....	234,704	Nov. 23	1106	.....	18	1193
Amalgamating apparatus.....	P. G. L. G. Designolle.....	228,806	June 15	812	222	17	1370
Amalgamating metals.....	P. G. L. G. Designolle.....	228,970	June 15	989	.....	17	1335
Amalgamating-mortar.....	J. S. Buck.....	235,505	Dec. 14	556	158	18	1332
Amalgamating-pans. Discharger for.....	H. S. Jacobs.....	232,132	Sept. 14	303	85	18	582
Amalgamator.....	C. E. Ball.....	227,716	May 18	736	206	17	1118
Amalgamator.....	C. E. Ball.....	227,717	May 18	738	207	17	1118
Amalgamator.....	C. E. and R. E. Ball.....	227,718	May 18	739	207	17	1119
Amalgamator.....	W. D. Smith.....	236,100	Dec. 28	1289	354	18	1518
Amalgamator.....	A. V. Trust.....	229,498	June 29	1612	444	17	1499
Amalgamator.....	P. B. Wilson.....	231,878	Aug. 31	1498	420	18	513
Amalgamator. Ore.....	C. E. Ball.....	229,078	June 22	1128	306	17	1423
Amalgamator spindles and shafts. Box for.....	E. Coleman.....	224,277	Feb. 10	353	101	17	281
Amber. Working.....	A. R. Davis.....	234,756	Nov. 23	1165	.....	18	1203
Ammonia. Manufacture of aqua.....	J. L. Marsh.....	230,303	July 20	935	266	18	168
Ammonia. Method and apparatus for obtaining.....	H. P. Lorenzen.....	232,991	Oct. 5	223	64	18	777
Amusement and instruction. Device for.....	F. Becker.....	233,198	Oct. 12	495	136	18	827
Angle-shears.....	W. and C. Sellers.....	235,908	Dec. 23	1057	292	18	1480
Animal carcasses. Machine for scraping.....	S. Collins.....	224,816	Feb. 24	1002	284	17	413
Animal matter. Apparatus for treating.....	D. Jarvis.....	233,417	Oct. 19	789	217	18	853
Animal-power.....	J. Wilson.....	232,384	Sept. 21	623	172	18	642
Animal-shears.....	J. Clough.....	232,938	Oct. 5	170	45	18	766
Animal-shears.....	J. G. Corey.....	229,872	July 13	429	118	18	80
Animal-shears.....	W. V. Cruess.....	234,250	Nov. 9	520	143	18	1082
Animal-shears.....	J. B. Swezey.....	233,575	Oct. 19	968	267	18	913
Animal-trap.....	J. C. W. Boico.....	233,917	Nov. 2	103	27	18	1003
Animal-trap.....	W. Driscoll.....	223,324	Jan. 6	140	36	17	25
Animal-trap.....	J. H. Eatman.....	230,182	July 20	792	224	18	146
Animal-trap.....	A. Goodwin.....	230,628	Aug. 3	38	10	18	253
Animal-trap.....	J. A. Hollem.....	224,910	Feb. 24	1106	316	17	431
Animal-trap.....	W. S. Kisinger.....	225,144	Mar. 2	188	53	17	483
Animal-trap.....	G. W. Lindsey.....	225,708	Mar. 23	668	254	17	636
Animal-trap.....	E. T. Lynch, J. R. Parker, and G. C. Steel.....	224,932	Feb. 24	1125	321	17	434
Animal-trap.....	A. McClain.....	225,624	Mar. 16	759	223	17	609
Animal-trap.....	E. Merry.....	231,823	Aug. 31	1437	404	18	505

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Animal-trap.....	J. H., W., and T. D. Morris.....	225,628	Mar. 16	762	224	17	609
Animal-trap.....	W., J. H., and T. D. Morris.....	235,553	Dec. 14	612	174	18	1391
Animal-trap.....	J. Quigley.....	225,763	Mar. 23	935	271	17	647
Animal-trap.....	R. Raby, Jr.....	223,757	Jan. 20	659	177	17	134
Animal-trap.....	J. L. Ramaley.....	229,913	July 13	471	130	18	87
Animal-trap.....	G. W. and I. B. Roberson.....	225,948	Mar. 30	1168	332	17	698
Animal-trap.....	A. G. Rogers.....	223,760	Jan. 20	664	179	17	135
Animal-trap.....	H. Shulenbarger.....	224,235	Feb. 3	226	86	17	252
Animal-trap.....	J. S. Simpson.....	224,960	Feb. 24	1152	329	17	438
Animal-trap.....	H. B. Sledgo.....	233,811	Oct. 26	1256	350	18	972
Animal-trap.....	A. L. Stevens and A. B. Hampton.....	233,123	Oct. 12	408	113	18	811
Animal-trap.....	J. L. Symonds.....	228,693	June 8	628	170	17	1334
Animal-trap.....	W. J. Webber.....	227,935	May 25	995	285	17	1171
Animal-trap.....	W. B. Wiggins.....	224,498	Feb. 10	598	173	17	321
Animal-trap.....	J. M. Wilkinson.....	233,452	Oct. 19	831	229	18	890
Animal-trap.....	T. Wilson.....	225,251	Mar. 9	316	90	17	524
Animal-trap.....	W. F. Witherington.....	231,134	Aug. 10	618	175	18	354
Annealing metal.....	J. Mather.....	234,193	Nov. 9	453	123	18	1070
Annunciator-drop.....	J. M. Wheeler.....	225,578	June 8	505	135	17	1315
Annunciator-drop. Electrical.....	E. T. Gilliland.....	230,265	July 20	698	255	18	162
Annunciator-drop. Electric.....	C. E. Scribner.....	233,705	Oct. 26	1136	317	18	951
Annunciator. Electric.....	C. H. Perkins.....	227,704	May 18	715	202	17	1116
Annunciator. Electric.....	J. I. Sabin.....	232,852	Oct. 5	67	19	18	750
Annunciator. Electrical.....	T. W. Lano.....	234,993	Nov. 30	1463	394	18	1259
Annunciator. Electrical.....	B. Smith.....	230,969	Aug. 10	435	125	18	325
Annunciator. Electrical.....	E. P. Warner.....	232,093	Sept. 7	258	71	18	566
Annunciator. Electro-magnetic.....	A. Bosch.....	225,039	Mar. 2	141	40	17	481
Annunciator for fire-alarm telegraphs.....	F. W. Griswold.....	232,707	Sept. 28	996	274	18	711
Annunciator. Hotel.....	J. H. Giles.....	233,087	Oct. 12	358	98	18	804
Annunciator. Pneumatic.....	D. and T. Morris.....	228,267	June 1	133	37	17	1247
Annunciators. Push-key attachment for.....	J. F. Martin.....	223,843	Mar. 23	1021	294	17	661
Anode.....	J. Kleinlans.....	226,616	Apr. 20	669	158	17	863
Anode-frame.....	A. Van Winkle.....	226,576	Apr. 13	497	140	17	840
Anthracene. Manufacture of.....	F. Salathé.....	227,588	May 11	573	164	17	1083
Anti-chafing device.....	E. Wells.....	235,599	Dec. 14	667	188	18	1400
Anti-friction composition for bearings.....	J. Smalley.....	227,849	May 18	876	249	17	1141
Anvil and vise. Combined.....	W. E. Canedy.....	225,563	Mar. 16	691	202	17	596
Apple-corer.....	B. J. Hopkins.....	227,901	May 25	959	275	17	1166
Apple-grinders. Pressure-plate for.....	G. B. Boomer and R. E. Boschert.....	225,456	Mar. 16	568	165	17	575
Arm-rest for writers.....	H. H. McElroy.....	226,411	Apr. 13	303	87	17	810
Armor-plate and method of producing the same.....	J. D. Ellis.....	232,476	Sept. 21	732	204	18	660
Arrow-rest for bows.....	N. R. Streeter.....	224,114	Feb. 3	167	47	17	231
Arrows and bow-strings. Clutch for.....	J. David.....	226,288	Apr. 6	161	46	17	775
Artist's board.....	E. F. French.....	229,244	June 29	1302	359	17	1457
Artist's canvas-stretcher.....	J. G. Fletcher.....	226,509	Apr. 13	430	120	17	829
Asbestos sheet for roofing, &c.....	H. W. Johns.....	230,946	Aug. 10	410	.....	18	321
Asbestos sheet for roofing, &c. Compound.....	H. W. Johns.....	230,945	Aug. 10	409	.....	18	321
Ash-box.....	L. Michel and C. Schirmeister.....	231,073	Aug. 10	547	155	18	342
Ash pan and sifter. Combined.....	S. Fink.....	228,749	June 15	733	202	17	1359
Ash-pan lifter.....	H. D. Pursell.....	227,921	May 25	981	281	17	1169
Ash-hod.....	N. H. Andrews.....	226,589	Apr. 20	536	150	17	858
Asparagus-buncher.....	J. and F. H. Weeks.....	233,051	July 27	1326	85	18	789
Asphaltum to a liquid. Process and apparatus for reducing.....	D. W. Bailey.....	227,945	May 25	1004	288	17	1173
Aspirator.....	W. Autenrieth.....	229,796	July 13	343	95	18	67
Assay-furnace.....	W. E. Judson.....	236,037	Dec. 28	1214	335	18	1505
Atmospheric engine.....	E. R. Powell.....	231,971	Sept. 7	123	31	18	544
Audiphone.....	T. W. Graydon.....	224,177	Feb. 3	235	68	17	242
Audiphone.....	T. W. Graydon.....	225,364	Mar. 9	458	133	17	546
Auger.....	R. E. Hardisty.....	235,234	Dec. 7	210	57	18	1315
Auger. Earth.....	A. J. Collins.....	225,508	Mar. 16	629	184	17	585
Auger. Earth.....	D. P. Cudd.....	226,444	Apr. 13	346	99	17	817
Auger. Earth.....	A. J. Dine.....	228,044	May 25	1121	319	17	1190
Auger. Earth.....	E. A. Smith.....	230,830	Aug. 3	274	78	18	292
Auger. Hollow.....	O. M. Brailley.....	226,968	Apr. 27	984	273	17	941
Auger. Hollow.....	E. C. Stearns.....	225,496	Mar. 16	613	177	17	582
Auger. Hollow.....	G. N. Stearns.....	234,693	Nov. 23	1097	294	18	1191
Auger. Post-hole.....	J. S. Dunning.....	231,775	Aug. 31	1364	383	18	493
Auger. Post-hole.....	M. M. Hubby.....	233,931	Nov. 2	117	32	18	1006
Auger. Post-hole.....	B. Knopp.....	232,041	Sept. 7	199	54	18	557
Augers. Manufacture of mining.....	D. W. Siprell.....	232,767	Sept. 28	1065	292	18	723
Augers. Operating earth.....	G. H. Wood.....	225,453	Mar. 9	552	159	17	562
Automatic gate.....	J. P. Kelso.....	226,522	Apr. 13	444	124	17	832
Automatic lubricator.....	S. H. Jenks.....	222,039	Sept. 7	198	53	18	557
Averaging-machine.....	W. S. Auchincloss.....	235,723	Dec. 21	819	229	18	1432
Awning.....	C. E. Fritsch.....	231,033	Aug. 10	509	143	18	336
Awning.....	G. S. Perkins.....	231,728	Aug. 31	1314	370	18	425
Awning.....	D. S. Richardson.....	234,373	Nov. 9	660	180	18	1105
Awning. Adjustable metallic.....	W. P. Woodruff.....	229,221	June 22	1274	350	17	1445
Awning. Blind.....	L. T. Seaver.....	228,784	June 15	782	214	17	1266
Awning-fastener.....	D. Erickson.....	228,990	June 22	1037	252	17	1410
Awning-frame.....	E. C. Cook.....	233,987	Nov. 2	192	50	18	1018
Awning-frame.....	E. C. Cook.....	233,988	Nov. 2	193	50	18	1019
Awning. Shutter.....	J. Carey, Jr.....	232,883	Oct. 5	109	29	18	756
Awning. Window.....	J. E. Dwinelle.....	231,548	Aug. 24	1094	307	18	444
awnings. Gearing for adjustable.....	E. O. Pohl.....	227,920	May 25	980	291	17	1169
Ax.....	A. K. Roberson.....	228,681	June 8	618	166	17	1332
Axle arm. Vehicle.....	E. D. Ives.....	233,932	Nov. 2	117	32	18	1006
Axle-arms for wagons. Apparatus for dressing.....	R. R. Miller.....	235,373	Dec. 14	389	107	18	1353
Axle-arms. Tool for repairing.....	L. S. Lewis.....	232,407	Sept. 21	649	179	18	646

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Axle-bearing.....	C. E. Candee.....	233,068	Oct. 12	337	93	18	800
Axle-box.....	R. W. Irwin.....	225,772	Dec. 21	872	244	18	1441
Axle-box.....	S. Marsh.....	235,546	Dec. 14	604	172	18	1390
Axle-box.....	G. W. Thomas.....	224,971	Feb. 24	1167	333	17	440
Axle box. Car.....	A. L. Anderson.....	228,720	June 15	701	193	17	1355
Axle box. Car.....	C. Barrett.....	224,986	Mar. 2	6	2	17	457
Axle box. Car.....	G. W. Brownell.....	225,269	Mar. 9	331	97	17	527
Axle box. Car.....	T. H. Burridge.....	231,993	Sept. 7	146	38	18	547
Axle box. Car.....	J. F. Crockett and C. Barrett.....	224,997	Mar. 2	17	5	17	459
Axle box. Car.....	G. W. Cushing.....	227,220	May 4	157	46	17	1003
Axle box. Car.....	G. F. Gear.....	232,811	Oct. 5	17	5	18	741
Axle box. Car.....	T. Haynes.....	225,219	Mar. 9	280	80, 81	17	518
Axle box. Car.....	H. Hazel.....	234,568	Nov. 16	921	247	18	1157
Axle box. Car.....	G. J. Holton.....	233,152	Oct. 12	442	{ 121 122 }	18	817
Axle box. Car.....	F. Keiser.....	231,814	Aug. 31	1418	399	18	501
Axle box. Car.....	F. Keiser.....	231,815	Aug. 31	1419	399	18	502
Axle box. Car.....	T. L. Luders.....	228,657	June 8	596	159	17	1329
Axle box. Car.....	R. and J. M. L. Macdonald.....	235,162	Dec. 7	123	34, 35	18	1302
Axle box. Car.....	W. G. Mitchell.....	224,209	Feb. 3	271	78	17	248
Axle box. Car.....	W. G. Mitchell.....	232,743	Sept. 28	1039	285	18	719
Axle box. Car.....	E. Robinson.....	232,149	Sept. 14	320	91	18	584
Axle box. Car.....	E. H. Shoemaker.....	226,797	Apr. 20	763	213	17	894
Axle box. Car.....	J. U. Sumpter.....	226,369	Apr. 6	245	72	17	790
Axle box. Car.....	D. J. Timlin.....	227,457	May 11	429	124	17	1058
Axle box. Car.....	I. P. Wendell.....	224,751	Feb. 17	892	255	17	381
Axle box. Car.....	C. M. and R. M. Wood.....	234,159	Nov. 9	407	{ 110 111 }	18	1061
Axle box. Car.....	W. P. Wyllly.....	234,901	Nov. 30	1354	364	18	1240
Axle-box cover. Car.....	A. R. Tiffany.....	226,463	Apr. 13	368	105	17	820
Axle-box ends. Machine for trimming vehicle.....	J. L. Haven.....	233,150	Oct. 12	439	{ 120 121 }	18	817
Axle box. Locomotive.....	J. J. Thomas.....	226,571	Apr. 13	493	139	17	839
Axle box. Vehicle.....	A. J. Robinson.....	223,609	Jan. 13	489	{ 131 132 }	17	97
Axle box. Vehicle.....	J. W. Trueblood.....	225,184	Mar. 2	226	64	17	495
Axle boxes. Oil-guard for car.....	J. G. Tiller.....	235,917	Dec. 28	1072	297	18	1483
Axle boxes. Sand-guard for car.....	H. Roth.....	235,298	Dec. 7	279	79	18	1327
Axle. Car.....	I. C. Plant.....	225,998	Mar. 30	1226	347	17	707
Axle. Car.....	J. M. Sigourney.....	236,097	Dec. 28	1283	353	18	1517
Axle. Carriage.....	F. D. Bliss.....	229,364	June 29	1459	401	17	1477
Axle. Carriage.....	A. E. Smith.....	232,560	Sept. 21	822	228	18	675
Axle. Carriage.....	D. Wentworth.....	233,307	Oct. 12	628	174	18	850
Axle clip. Carriage.....	S. H. Carpenter.....	235,069	Dec. 7	11	3	18	1283
Axle coupling. Vehicle.....	C. Eimbeck and F. Wehrmann.....	232,473	Sept. 21	729	202	18	659
Axle cutter. Wagon.....	J. Harris and W. K. Patrick.....	224,824	Feb. 24	1009	286	17	415
Axle-cutting device.....	L. A. Young.....	231,387	Aug. 17	910	256	18	408
Axle-lubricator.....	S. Broadbent.....	229,859	July 13	415	115	18	78
Axle-lubricator.....	L. S. Enos.....	234,258	Nov. 9	529	145	18	1083
Axle-lubricator.....	P. Habel.....	232,285	Jan. 6	94	23	17	18
Axle-lubricator.....	T. White.....	235,717	Dec. 21	813	228	18	1431
Axlelubricator. Car.....	C. D. Flynt.....	228,337	June 1	205	57	17	1260
Axlelubricator. Car.....	S. J. and G. J. Shimer.....	224,047	Feb. 3	85	25	17	218
Axlelubricator. Car.....	E. Thomas.....	229,065	June 22	1111	302	17	1421
Axlelubricator. Vehicle.....	L. Adams.....	228,242	June 1	99	30	17	1242
Axle-nut wrench.....	T. L. Chipman and S. A. Reynolds.....	227,093	May 4	3	1	17	979
Axle. Railway-car.....	C. B. Morse.....	233,634	Oct. 26	1058	294	18	938
Axle-skein.....	A. McKellar.....	224,935	Feb. 24	1129	322	17	434
Axle skein. Vehicle.....	J. C. Sebring.....	229,920	July 13	477	132	18	88
Axle-turner and screw-cutter.....	T. B. Black.....	230,395	July 27	1080	304	18	199
Axle. Vehicle.....	J. Conniff.....	224,077	Feb. 3	128	36	17	224
Axle. Vehicle.....	G. Doelittle and E. A. Curtiss.....	227,678	May 18	682	194	17	1111
Axle. Vehicle.....	W. C. Partlow.....	226,454	Apr. 13	357	102	17	818
Axle. Vehicle.....	J. Paulu.....	230,433	July 27	1126	316	18	206
Axle. Wagon.....	J. B. Herman.....	227,777	May 18	801	226	17	1129
Axles. Ball-and-socket coupling for vehicle.....	J. Sinnamon.....	225,027	Mar. 2	53	15	17	465
Axles. Machine for machining.....	F. D. Bliss.....	235,929	Dec. 23	1089	301	18	1485
Axles. Machine for shaping the arms or spindles of.....	J. Kritch.....	235,440	Dec. 14	471	133	18	1368
Axles of vehicles, &c. Safety-nut for.....	H. Anderson.....	235,060	Dec. 7	1	1	18	1281
Axles. Sand-band for carriage.....	J. A. Tillinghast.....	231,691	Aug. 31	1265	355	18	478
Baby-carrier.....	H. Behr.....	229,233	June 29	1290	354	17	1455
Baby-chair strap.....	M. W. Blacker.....	229,946	July 13	510	141	18	93
Baby-jumper.....	C. H. Land.....	230,707	Aug. 3	131	38, 39	18	268
Back-band hook and buckle.....	S. Ward.....	226,135	Mar. 30	1381	389	17	732
Badge.....	E. R. Smith.....	234,210	Nov. 9	477	130	18	1074
Bag: See Feed-bag.                      Traveling-bag. Mail-bag.                          Water-bag. Paper bag.							
Bag and twine holder.....	F. P. Sherman.....	235,103	Dec. 7	45	14	18	1289
Bag-fastener.....	W. C. Joslin.....	233,935	Nov. 2	124	34	18	1007
Bag-fastening.....	C. Appleton.....	233,908	Nov. 2	91	24	18	1002
Bag for packing and storing.....	J. H. Preater.....	229,333	June 29	1419	389	17	1472
Bag-frame loop-box.....	O. Reichenbach.....	230,572	July 27	1279	360	18	232
Bag-holder.....	W. B. Allen.....	226,586	Apr. 20	533	149	17	857
Bag-holder.....	L. A. Fish.....	234,012	Nov. 2	236	64	18	1024
Bag-holder.....	B. A. Taber.....	232,568	Sept. 21	827	229	18	676
Bag-holder.....	W. Yerdon.....	224,318	Feb. 10	400	113	17	289
Bag-holder and truck. Combined.....	H. M. Curtis, J. P. Musser, and N. A. Trowbridge.....	228,733	June 15	712	196	17	1356
Bag-holder and truck therefor.....	L. H. Aldrich.....	234,381	Nov. 16	697	187	18	1119
Bag-lock.....	B. Conlan and J. O'Neil.....	233,921	Nov. 2	106	29	18	1004
Bag or satchel.....	D. Wilhelmi.....	230,847	Aug. 3	292	83	18	295
Bag-tie.....	C. F. Cook and J. L. Vandermark.....	233,475	Oct. 19	853	235	18	894

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Bag-tie	L. A. Fish	234,011	Nov. 2	235	64	18	1024
Bag-tie	M. Y. Hall	224,180	Feb. 3	237	69	17	243
Bag-tie	J. Hill	225,830	Mar. 23	1009	290	17	659
Bag-tie and tag-holder	B. L. Myers	230,647	Aug. 3	62	17	18	257
Bag-tie buckle	J. M. Thayer	223,556	Jan. 13	423	113	17	87
Bail and rim bending machine	J. Geiger	227,425	May 11	394	115	17	1053
Bail-forming machine	S. E. Smith	226,364	Apr. 6	239	70	17	790
Bail or handle. Crock	B. Goodyear	231,791	Aug. 31	1390	392	18	497
Bails. Machine for forming eyes on wire	J. Geiger	234,022	Nov. 2	245	67	18	1026
Bake-pan	G. Mander	229,158	June 22	1213	332	17	1436
Baking apparatus	C. Haffcke	228,753	June 15	739	203	17	1360
Baking device	W. H. Hendersen	229,314	June 29	1395	382		
Baking-pan	A. W. Morgan	227,814	May 18	838	237	17	1135
Baking-powder	C. E. Avery	235,615	Dec. 21	694		18	1411
Baking-powder. Acid phosphate for	C. A. Catlin	229,518	July 6	9		18	10
Baking-powder can	J. S. Taylor	226,804	Apr. 20	770	215	17	896
Baking-powder. Preparation of potassium phosphate for	G. F. Wilson and C. A. Catlin	229,573	July 6	79		18	21
Baking-powder. Preparation of sodium phosphate for	G. F. Wilson and C. A. Catlin	229,574	July 6	80		18	21
Balance. Differential	G. S. Palmer	227,050	Apr. 27	1086	300	17	957
Balance-wheel connecting device	B. Merritt	225,068	Mar. 2	110	31	17	475
Balances. Attachment to	W. B. Le Noir and R. P. Chmn	226,083	Mar. 30	1321	372	17	722
Balcony. Portable	H. H. De Wolf	223,638	Jan. 20	533	143	17	114
Bale-band fastening	L. Miller	235,273	Dec. 7	254	71	18	1323
Bale-band tightener	C. T. Christmas	231,273	Aug. 17	793	232	18	389
Bale-band tightener	L. Miller	235,550	Dec. 14	609	173	18	1391
Bale-band tightener	S. Stucky	234,734	Nov. 23	1142	308		
Bale-band. Wire	E. S. Lenox	230,789	Aug. 3	218	63	18	282
Bale-band. Wire	E. S. Lenox	230,790	Aug. 3	219	64	18	282
Bale-ejector for presses	H. Riesel	235,294	Dec. 7	276	77	18	1326
Bale-ejector for presses	H. Riesel	235,295	Dec. 7	277	78	18	1327
Bale-tag	P. Cohen	231,277	Aug. 17	798	223	18	389
Bale-tie	J. G. Battelle	233,913	Nov. 2	97	26	18	1003
Bale-tie	J. G. Battelle	234,943	Nov. 30	1401	377	18	1247
Bale-tie	J. R. Cavett	226,388	Apr. 13	273	81	17	806
Bale-tie	P. K. Dederick	230,620	Aug. 3	27	8	18	251
Bale-tie	E. Haiman	226,851	Apr. 27	843	234	17	919
Bale-tie	D. A. Kilmer	228,648	June 8	589	157	17	1328
Bale-tie	D. A. Kilmer	228,649	June 8	590	157	17	1328
Bale-tie	J. I. Knight	234,786	Nov. 23	1202	325	18	1209
Bale-tie	J. I. Knight	234,787	Nov. 23	1204	325	18	1209
Bale-tie	J. B. Law	233,522	Oct. 19	906	250	18	903
Bale-tie	E. S. Lenox	228,767	June 15	758	208	17	1363
Bale-tie	J. F. McLaughlin	230,313	July 20	945	269	18	170
Bale-tie	H. Riesel	231,616	Aug. 24	1171	327	18	456
Bale-tie	W. S. E. Sevey	228,223	June 1	74	22	17	1239
Bale-tie	G. R. Smith	224,800	Feb. 24	988	280	17	411
Bale-tie	T. B. Taylor	234,822	Nov. 23	1252	336	18	1217
Bale-tie	J. M. Van Derzee	235,183	Dec. 7	144	41		
Bale-tie	T. A. Weber	236,128	Dec. 28	1330	365	18	1525
Bale-tie	J. White	230,093	July 13	666	186	18	117
Bale-tie	J. White	235,973	Dec. 28	1141	316	18	1494
Bale-tie buckle	J. H. Mitchell	224,708	Feb. 17	847	241	17	374
Bale tie. Cotton	W. D. Field	223,723	Jan. 20	623	167	17	128
Bale tie. Cotton	S. H. Gilman	225,517	Mar. 16	640	187	17	586
Bale-tie. Wire	L. E. Evans	229,392	June 29	1488	409	17	1481
Bale-wire-inserting and bale-dividing device	P. K. Dederick	227,616	May 18	613	176	17	1101
Baling bran, &c. Machine for	H. Kennedy	226,523	Apr. 13	446	125	17	832
Baling cotton, &c.	P. K. Dederick	233,603	Oct. 26	1020	284	18	932
Baling machine. Hay	P. K. Dederick	227,677	May 18	681	194	17	1110
Baling-press	A. Buckman	230,736	Aug. 3	159	47	18	272
Baling-press	C. T. Christmas	228,036	May 25	1114	317	17	1189
Baling-press	M. F. Connett	224,655	Feb. 17	794	224	17	364
Baling-press	R. Cook	228,515	June 8	425	116	17	1303
Baling-press	R. P. Davis	228,876	June 15	892	243	17	1381
Baling-press	P. K. Dederick	224,279	Feb. 10	355	101	17	282
Baling-press	P. K. Dederick	224,280	Feb. 10	357	102	17	282
Baling-press	P. K. Dederick	224,281	Feb. 10	358	102	17	282
Baling-press	P. K. Dederick	227,617	May 18	614	176		
Baling-press	P. K. Dederick	231,215	Aug. 17	732	205	18	378
Baling-press	W. Duke	234,549	Nov. 16	895	240		
Baling-press	A. A. Gehrt	232,400	Sept. 21	639	176	18	645
Baling-press	J. Grizzel	232,260	Sept. 14	462	128	18	609
Baling-press	W. P. Groom	226,998	Apr. 27	1019	253	17	947
Baling-press	J. C. Kamp and C. Brown	224,920	Feb. 24	1114	319	17	432
Baling-press	T. D. Kane	229,892	July 13	449	124	18	83
Baling-press	H. O. King	228,361	June 1	226	64	17	1264
Baling-press	M. Loeser	235,542	Dec. 14	600	171	18	1389
Baling-press	A. M. Paxton	225,416	Mar. 9	514	148	17	555
Baling-press	J. Price	232,298	Sept. 14	503	140	18	616
Baling-press	J. H. Simonson	230,359	July 20	1002	284		
Baling-press	J. Smith	233,812	Oct. 26	1257	351	18	972
Baling-press. Portable	B. M. Watts	225,773	Mar. 23	945	273	17	648
Ball:							
See Alkali ball.	Tube-welding ball.						
Target-ball.							
Ball-and-socket hanger	N. Stedman	235,711	Dec. 21	803	226	18	1430
Ball-trap	W. R. Hamilton	232,347	Sept. 21	575	158	18	634
Ball-trap	B. Hempstead	227,776	May 18	800	226	17	1128



*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Ball-trap .....	J. Kerstetter and J. Fagley .....	232,728	Sept. 28	1018	280	18	715
Ball-trap .....	T. M. Smith .....	224,049	Feb. 3	87	26	17	218
Ball-trap .....	M. Warne .....	228,957	June 15	975	266	17	1393
Ballot-box .....	W. Crowe and T. R. Hester .....	229,965	July 13	528	146 147	18	96
Ballot-box .....	J. H. Drake .....	226,726	Apr. 20	687	191	17	882
Ballot-box .....	E. Q. Norton .....	228,105	May 25	1192	339	17	1203
Ballot-box .....	J. Welch .....	226,689	Apr. 20	650	181	17	876
Ballot-box. Recording .....	J. G. H. Buck .....	224,385	Feb. 10	477	136 137	17	301
Band-cutter .....	J. L. and W. E. Alexander .....	235,483	Dec. 14	528	152	18	1377
Band-cutter .....	G. Biehn and R. Weidauer .....	234,944	Nov. 30	1402	377	18	1248
Band cutting and removing apparatus .....	W. Gray .....	234,561	Nov. 16	909	244	18	1154
Band-tie .....	G. P. Richardson .....	231,100	Aug. 10	581	165	18	349
Bandage .....	W. E. Hull .....	226,033	Dec. 28	1210	.....	18	1505
Banjo .....	C. F. Burrowes .....	224,512	Feb. 17	626	181	17	337
Banjo .....	J. H. McQuilkin .....	226,621	Apr. 20	573	160	17	864
Bar:							
See Car draw-bar.	Hitching-bar.						
Draft-bar.	Horseshoe-bar.						
Fire-box crown-bar.	Railway draw-bar.						
Furnace-grate bar.	Railway-switch bar.						
Grate-bar.	Skylight-bar.						
Harvester cutter-bar.	Vehicle-spring bar.						
Harvester sickle-bar.	Wagon lifting-bar.						
Barb bender and cutter .....	J. S. Hayne .....	234,671	Nov. 23	1072	289	18	1189
Barber's chair .....	H. A. Candrian .....	233,140	Oct. 12	430	118	18	815
Barber's chair .....	F. Peters .....	224,604	Feb. 17	738	209	17	355
Barbing-machine .....	T. J. and P. F. Howe .....	228,635	June 8	575	152	17	1325
Barge. Grain .....	J. Good .....	233,748	Oct. 26	1184	329	18	959
Bark-cutting machine .....	S. R. Thompson and S. W. Johnson .....	229,205	June 22	1258	346	17	1442
Bark-mill .....	D. O'Brien .....	234,324	Nov. 9	606	165	18	1096
Bark. Purifying extracts of .....	E. Bradley .....	230,398	July 27	1083	305	18	199
Barrel-bodies. Heating apparatus for .....	J. F. Wood and J. A. Wilkison .....	226,435	Apr. 13	335	95, 96	17	815
Barrel-cover and sample-case. Combined .....	T. W. Lacock .....	233,258	Oct. 12	566	157	18	839
Barrel-drying apparatus .....	E. and B. Holmes .....	235,531	Dec. 14	586	167	18	1387
Barrel-dumper .....	M. C. Briggs and W. A. Jones .....	225,792	Mar. 23	969	279	17	652
Barrel, &c., elevator .....	L. W. Greenleaf .....	231,793	Aug. 31	1391	393	18	498
Barrel-filler .....	J. P. Holt .....	233,247	Oct. 12	555	154	18	837
Barrel-heading press .....	C. Tyrrell .....	223,302	Jan. 6	117	30	17	22
Barrel-heading press .....	C. Tyrrell .....	223,303	Jan. 6	118	30	17	22
Barrel-heater .....	C. O. Cook, C. W. Chase, and J. Beard .....	234,908	Nov. 30	1365	366	18	1242
Barrel-hoop .....	E. Hale .....	229,699	July 6	214	58	18	39
Barrel-lifter .....	W. Brown .....	224,137	Feb. 3	189	54	17	235
Barrel-machine .....	G. Farnsworth .....	224,587	Feb. 17	721	205	17	352
Barrel-machine .....	L. Smith .....	225,303	Mar. 9	388	113	17	534
Barrel-making machine .....	D. Murray and T. W. McGrogan .....	232,054	Sept. 7	213	58	18	559
Barrel. Metal-lined wooden .....	J. L. Barlow .....	235,980	Dec. 28	1150	319	18	1496
Barrel-platform .....	T. Allwood .....	231,641	Aug. 31	1210	339	18	469
Barrel-swing .....	J. Cummins .....	229,306	June 29	1386	380	17	1468
Barrel-swing .....	W. J. Marden .....	229,002	June 22	1047	285	17	1411
Barrel-swing .....	P. W. Nelson .....	226,538	Apr. 13	460	130	17	834
Barrel-swing .....	S. W. Sheldon .....	227,848	May 18	875	249	17	1141
Barrel-swing .....	E. M. Mallett .....	232,523	Sept. 21	785	218	18	669
Barrel-swinging device .....	W. C. Rudd .....	228,941	June 15	960	260	17	1390
Barrels for white alcoholic liquors. Manufacture of .....	H. De Bus .....	226,044	Mar. 30	1280	.....	17	716
Barrels. Handling .....	J. A. Griswold .....	224,527	Feb. 17	643	185	17	339
Barrels. Lye-conductor for .....	F. Jones .....	224,698	Feb. 17	840	239	17	373
Barrels. Machine for setting up .....	J. W. Jones .....	232,134	Sept. 14	305	86	18	582
Barrels. Manufacture of .....	H. M. Fitzhugh .....	232,254	Sept. 14	457	126	18	608
Barrels or churns. Head for .....	J. McDermaid .....	232,997	Oct. 5	240	66	18	778
Barrels. Rack for tiering .....	W. H. Thomas .....	232,569	Sept. 21	828	229	18	676
Basins, &c. Device for cleaning overflows of wash-basin or sink for kitchens, &c. Wash .....	J. J. Elwood .....	233,741	Oct. 26	1176	327	18	958
Basin. Wash .....	F. Rauscher .....	227,575	May 11	561	160	17	1081
Basket .....	H. A. Skelley .....	225,880	Mar. 23	1064	304	17	668
Basket. Folding .....	J. W. Hogg .....	226,854	Apr. 27	847	235	17	920
Basket. Folding .....	H. H. Cammann .....	232,620	Sept. 28	967	266	18	706
Basket-handle attachment .....	C. J. Underwood .....	231,461	Aug. 24	997	280	18	429
Basket. Metallic .....	A. Hourdeaux .....	230,482	July 27	1186	334	18	216
Basket-splints. Machine for shaving .....	J. B. F. Page .....	232,752	Sept. 28	1048	287	18	720
Bat. Game .....	A. B. Fisher .....	234,398	Nov. 16	715	193	18	1122
Bath .....	C. Kreutzer .....	236,045	Dec. 28	1225	338	18	1507
See Electric vapor-bath. Foot-bath.							
Bath-box for chemical and photographic purposes. Ventilated .....	J. C. Macurdy .....	234,879	Nov. 30	1326	357	18	1236
Bath-chamber. Portable .....	J. N. Lee .....	232,731	Sept. 28	1021	281	18	715
Bath-closet .....	C. D. Watkins .....	230,453	July 27	1155	326	18	210
Bath-tub .....	T. M. Armstrong .....	230,684	Aug. 3	105	30	18	263
Bath-tub .....	H. Arnd .....	228,722	June 15	703	193	17	1355
Bath waste and overflow .....	S. G. McFarland .....	229,627	July 6	132	37	18	28
Bathing apparatus .....	H. D. Ward .....	233,304	Oct. 12	625	173	18	849
Bathing apparatus. Portable .....	E. M. Bement .....	231,984	Sept. 7	138	35	18	546
Bathing attachment for piers .....	L. Kirkup .....	225,989	Mar. 30	1213	343	17	705
Battery:							
See Galvanic battery.							
Beach-seat .....	G. H. Chatterton .....	229,378	June 29	1473	406	17	1479
Beans, pease, &c., for food. Preparing .....	W. Butts .....	226,712	Apr. 20	673	.....	17	880
Bearing .....	J. A. Osenbrück .....	229,171	June 22	1223	335 336	17	1438
Bearing. Suspension .....	E. Geyelin .....	229,029	June 22	1083	295	17	1417
Bed and bolster. Woven-wire .....	R. Wagner and H. E. Friedrich .....	225,737	Mar. 23	899	262	17	641

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Bed-bottom	J. Bowen	226,026	Mar. 30	1260	355	17	712
Bed-bottom	J. R. Pafford	230,045	July 13	617	172	18	109
Bed-bottom	J. W. Price	223,385	Jan. 6	200	53	17	37
Bed-bottom	L. E. Ransom	224,846	Feb. 24	1036	295	17	419
Bed-bottom frames, &c. Corner-fastening for connecting	W. F. Moody	224,028	Feb. 3	63	19	17	214
Bed-bottom. Spring	J. Boyers	229,085	June 22	1136	310	17	1425
Bed-bottom. Spring	E. P. Fowler	234,262	Nov. 9	537	147	18	1084
Bed-bottom. Spring	A. W. Jackson	224,337	Feb. 10	424	121	17	292
Bed-bottom. Spring	W. B. McLain	224,835	Feb. 24	1021	290 291	17	417
Bed-bottom. Spring	C. Merrick	223,428	Jan. 6	247	65	17	45
Bed-bottom. Spring	J. M. Stark	232,657	Sept. 28	941	259	18	702
Bed-bottom. Spring	S. L. Stockberger	228,789	June 15	787	215	17	1367
Bed-bottom. Spring	M. A. Throne	229,020	June 22	1064	290	17	1414
Bed-bottom. Spring	L. H. Whitney	229,023	June 22	1066	291	17	1415
Bed-bottom spring	I. A. Clippinger	232,390	Sept. 21	629	173	18	643
Bed. Cabinet	L. C. Boyington	230,397	July 27	1082	304	18	199
Bed. Cabinet folding	H. Ogborn	224,842	Feb. 24	1030	293 294	17	418
Bed. Camp	T. J. Joslin	229,421	June 29	1517	419	17	1486
Bed-canopy frame	W. W. Whitehead	223,687	Jan. 20	587	158	17	122
Bed. Folding	F. Raymond	223,386	Jan. 6	201	53	17	37
Bed-frame	T. L. Odell	226,099	Mar. 30	1340	377 378	17	724
Bed-frame rail-joint	W. B. Cantrell	230,526	July 27	1230	347	18	223
Bed. Invalid	W. W. Snell	229,559	July 6	63	17	18	18
Bed. Lounge	S. Graves	230,545	July 27	1253	353	18	227
Bed-lounge	F. H. Lamb	223,234	Jan. 6	33	8	17	8
Bed-lounge	G. Snyder	228,690	June 8	625	169	17	1333
Bed-lounge	T. Soden	224,739	Feb. 17	880	251	17	379
Bed-pan	W. M. Searby	234,076	Nov. 2	302	84	18	1036
Bed rest. Invalid	J. V. R. Towers	229,286	June 29	1356	372	17	1464
Bed. Sofa	S. G. Young	229,225	June 22	1278	351	17	1445
Bed. Spring	O. S. Foster	229,243	June 29	1301	359	17	1457
Bed. Spring	C. A. Libby	234,303	Nov. 9	584	158	18	1092
Bed-spring	E. L. Bushnell	235,338	Dec. 14	351	96	18	1347
Bed-spring	L. Wildermuth	224,315	Feb. 10	398	112	17	288
Bed. Wardrobe	N. G. Rood	225,765	Mar. 23	937	271	17	647
Bedstead. Cabinet	J. W. Stanton	223,770	Jan. 20	674	181	17	137
Bedstead-fastening	N. P. Bradish	230,172	July 20	781	218	18	145
Bedstead-fastening	F. S. Clarkson	223,837	Jan. 27	771	206	17	163
Bedstead-fastening	F. S. Clarkson	228,728	June 15	708	194	17	1356
Bedstead-fastening	O. G. Musser	224,714	Feb. 17	852	243	17	375
Bedstead. Folding cabinet	A. W. and C. T. Kendrick	225,393	Mar. 9	485	141 142	17	550
Bedstead. Folding or cabinet	S. S. Burr	230,105	July 20	706	197	18	133
Bedstead-frame leg	G. Steinson	230,078	July 13	653	182	18	115
Bedstead. Invalid	P. F. Adams	225,455	Mar. 16	567	165	17	575
Bedstead. Invalid	C. M. Campbell	225,106	Mar. 2	147	43	17	482
Bedstead. Invalid	E. Conover	228,318	June 1	186	52	17	1257
Bedstead. Invalid	L. Prince	229,460	June 29	1565	431	17	1493
Bedstead. Invalid	L. Prince	229,910	July 13	465	129	18	86
Bedstead. Sofa	C. S. E. and J. G. Spoerl and G. Curtis	228,408	June 1	276	78	17	1271
Bedstead-spring. Folding	H. A. J. Rieckert	235,293	Dec. 7	275	77	18	1326
Bedstead. Wardrobe	M. Crosby	232,805	Oct. 5	9	3	18	740
Bedstead. Wardrobe	M. Crosby	233,991	Nov. 2	197	51, 52	18	1019
Bedstead. Wardrobe	E. N. Doring	233,484	Oct. 19	860	238	18	895
Bedstead. Wardrobe	H. S. Hale	226,310	Apr. 6	187	55	17	780
Bedstead. Wardrobe	S. Winslow	235,479	Dec. 14	523	151	18	1377
Bee-bucket	G. C. and S. E. Finley	223,330	Jan. 6	147	37	17	26
Bee-hive	P. Adair and O. M. Colbert	226,821	Apr. 27	805	225	17	913
Bee-hive	A. Barnhart	228,801	June 15	807	220	17	1369
Bee-hive	W. S. Blaisdell	229,362	June 29	1457	401	17	1477
Bee-hive	J. T. Fife	224,589	Feb. 17	722	205 206	17	352
Bee-hive	R. Himes	226,613	Apr. 20	564	157	17	863
Bee-hive	E. H. Key	223,924	Jan. 27	881	234	17	180
Bee-hive	K. Kidder and P. S. Jenkins	227,979	May 25	1055	300	17	1180
Bee-hive	S. Moore	228,666	June 8	603	161	17	1330
Bee-hive	D. D. Powles	235,570	Dec. 14	635	180 181	18	1395
Bee-hive	J. W. Read	235,896	Dec. 28	1042	288	18	1478
Bee-hive	E. Sheffield and G. R. Barnes	229,192	June 22	1244	341	17	1440
Bee-hive	W. Truxal	230,448	July 27	1147	322	18	209
Beefsteak-masticators. Mold for	J. B. Fleck	231,028	Aug. 10	504	142	18	335
Beer, &c. Apparatus for preserving	P. Kingsland	231,432	Aug. 24	967	272	18	424
Beer-cooler	J. Burkhart	224,869	Feb. 24	1061	302 303	17	423
Beer-cooler	J. C. De La Vergne	230,694	Aug. 3	114	33	18	265
Beer-cooler	J. Lederle and L. Oberlein	234,133	Nov. 9	379	104	18	1056
Beer-cooler	J. G. Müller	235,554	Dec. 14	613	175	18	1392
Beer-cooler	A. D. Puffer	230,815	Aug. 3	249	71	18	287
Beer-cooler	A. Reisert	235,292	Dec. 7	274	77	18	1326
Beer-cooler	W. Schwartz	227,450	May 11	420	122	17	1057
Beer-cooler	P. Seibel	231,934	Sept. 7	62	16	18	535
Beer. Manufacture of	G. C. Holderer	224,186	Feb. 3	247	17	17	244
Bell. Call	J. P. Connell	225,690	Mar. 23	850	246	17	633
Bell. Electric	C. J. Means	234,316	Nov. 9	598	163	18	1094
Bell. Electric alarm	C. Heisler	227,433	May 11	403	117	17	1054
Bell. Electric call	M. L. Baxter	233,534	Nov. 2	7	2, 3	18	988
Bell. Electric call	J. Franklo and C. E. Kelley	235,147	Dec. 7	104	30, 31	18	1299
Bell. Electric call	J. D. Richardson	224,477	Feb. 10	578	166	17	317

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Bell. Electric signal.....	H. Amory.....	228,851	June 15	863	235	17	1377
Bell. Gong.....	C. L. Bates.....	231,752	Aug. 31	1340	377	18	489
Bell. Gong and signal.....	E. W. Vanduzen.....	229,567	July 6	72	20	18	19
Bell hanger. Table.....	J. B. Beach.....	224,379	Feb. 10	470	135	17	300
Bell. Individual call.....	F. Blake.....	232,442	Sept. 21	694	192	18	653
Bell. Letter-box.....	C. Hermann.....	233,617	Oct. 26	1036	288	18	934
Bell-striker.....	E. W. Vanduzen.....	229,564	July 6	69	19	18	19
Bell-wires. Angle for.....	E. W. Vanduzen.....	229,566	July 6	71	20	18	19
Bells. Attaching clapper-springs to.....	E. W. Vanduzen.....	229,565	July 6	70	19	18	19
Bells. Hanging.....	E. W. Vanduzen.....	229,568	July 6	73	20	18	20
Bells. Hanging.....	E. W. Vanduzen.....	229,569	July 6	74	21	18	20
Bells. Line-stand for steamboat.....	E. W. Vanduzen.....	229,570	July 6	75	21	18	20
Bells with brass. Coating stock.....	O. B. Wilson.....	234,900	Nov. 30	1353	.....	18	1240
Bellows.....	J. Van Eps.....	229,563	July 6	68	19	18	19
Belt-coupling.....	I. N. Hinderliter.....	234,776	Nov. 23	1192	322	18	1207
Belt. Driving.....	E. and C. Poullain.....	235,018	Nov. 30	1493	402	18	1264
Belt-elevator.....	G. H. Perkins.....	224,843	Feb. 24	1032	294	17	418
Belt-fastener.....	E. R. Hyde.....	231,671	Aug. 31	1244	350	18	474
Belt-fastener.....	A. Johnston, J. Mallette, and C. Wood.....	231,808	Aug. 31	1411	397	18	500
Belt-fastener.....	J. McGeorge.....	223,598	Jan. 13	476	128	17	96
Belt-fastener.....	W. L. Potter.....	226,546	Apr. 13	470	132	17	836
Belt-fastener.....	H. G. and J. T. Redsecker.....	224,951	Feb. 24	1145	327	17	437
Belt-fastening.....	W. W. Green.....	230,936	Aug. 10	399	116	18	319
Belt-fastening.....	R. McCully.....	225,405	Mar. 9	504	145	17	553
Belt-fastening.....	A. Schuhknecht.....	229,278	June 29	1343	368	17	1462
Belt for harvesters, &c. Elevator.....	G. H. Raymond.....	229,275	June 29	1339	368	17	1462
Belt for transmitting power.....	A. S. Gear.....	227,163	May 4	90	24	17	992
Belt for wearing-apparel. Celluloid.....	C. B. and J. M. Hays.....	233,414	Oct. 19	786	216	18	883
Belt. Galvanic.....	E. J. Fraser.....	224,414	Feb. 10	508	146	17	306
Belt. Galvanic.....	E. J. Fraser.....	235,224	Dec. 7	200	54	18	1314
Belt. Galvanic.....	T. W. Graydon.....	226,658	Apr. 20	617	172	17	871
Belt. Galvanic.....	C. Norwood.....	224,717	Feb. 17	855	244	17	375
Belt. Galvanic.....	C. N. West.....	234,379	Nov. 9	667	182	18	1106
Belt-lifter.....	F. Stapelmann.....	235,970	Dec. 28	1139	315	18	1494
Belt-shifting mechanism.....	T. Peat.....	234,802	Nov. 23	1228	331	18	1212
Belt-shifting mechanism for washing-machines.....	L. Sternberger.....	234,439	Nov. 16	764	205 206	18	1131
Belt-shipper.....	B. H. Hadley.....	234,563	Nov. 16	912	245	18	1155
Belt-tightener.....	J. Bangham.....	224,378	Feb. 10	470	135	17	300
Belt-tightener.....	V. H. Hallock.....	226,311	Apr. 6	187	55	17	780
Belt-tightener.....	W. D. Rinehart and J. Albertson.....	229,841	July 13	398	109	18	75
Belt tightener and regulator.....	F. Paquet.....	227,382	May 11	351	102	17	1046
Belt. Woven endless.....	S. W. Baker.....	229,939	July 13	501	139	18	91
Belts. Lacing.....	O. C. Pomeroy.....	228,390	June 1	260	73	17	1268
Belts. Method of and means for clasping.....	W. M. Whiting.....	232,428	Sept. 21	676	186	18	650
Belting and process of manufacture. Cotton.....	M. Gandy.....	228,186	June 1	27	9, 10	17	1231
Belting. Machine.....	G. S. Long.....	231,726	Aug. 31	1312	369	18	485
Belting. Machine.....	E. Schmidt.....	229,190	June 22	1241	341	17	1440
Belting. Machine for making rubber.....	J. D. Joslin.....	231,327	Aug. 17	848	239	18	398
Belting. Machine for stretching leather.....	W. H. Chace.....	232,454	Sept. 21	710	196	18	655
Belting. Manufacture of flexible.....	W. B. Frue and W. McDermott.....	226,843	Apr. 27	832	231	17	917
Belting. Manufacture of machine.....	F. Walton.....	234,360	Nov. 9	646	.....	18	1103
Bench:							
See Draw-bench. Work-bench.							
Wash-bench. Wringing-machine bench.							
Bench-dog.....	P. Cook.....	233,986	Nov. 2	192	50	18	1018
Bench-hook.....	H. J. Williams.....	232,094	Sept. 7	259	71	18	566
Berry-basket.....	R. E. Morey.....	229,904	July 13	460	127	18	85
Berry-basket holder.....	W. J. Robinson.....	232,068	Sept. 7	227	63	18	561
Berth for vessels. Self-leveling.....	D. Huston.....	234,673	Nov. 23	1075	290	18	1188
Berth for vessels. Self-leveling.....	C. C. Sanderson.....	228,278	June 1	146	41	17	1250
Berth for vessels. Self-leveling.....	T. O. L. Schrader.....	233,376	Oct. 19	736	201	18	875
Berth-guard. Sleeping-car.....	E. A. McMann.....	223,527	Jan. 13	393	105	17	82
Berth-guard. Sleeping-car.....	E. A. McMann.....	229,834	July 13	365	106	18	73
Berth. Oscillating ship's.....	T. O. L. Schrader.....	224,232	Feb. 3	293	85	17	252
Berth. Pendulum.....	F. Gardner.....	225,006	Mar. 2	28	8	17	461
Berth-protector for sleeping-cars.....	G. W. Farlee.....	223,494	Jan. 13	355	95	17	75
Berth. Self-leveling.....	W. Miller.....	228,100	May 25	1188	337	17	1202
Berth. Self-leveling ship's.....	H. A. Darrin.....	231,284	Aug. 17	803	225	18	390
Berth. Self-leveling ship's.....	D. Parks.....	224,469	Feb. 10	570	164	17	316
Berth. Self-leveling ship's.....	C. C. Sanderson.....	228,279	June 1	147	41	17	1250
Berths. Safeguard for sleeping.....	E. A. McMann.....	229,833	July 13	385	106	18	73
Bevel.....	E. A. Johnson.....	228,903	June 15	918	250	17	1284
Beveled gears. Machine for trimming.....	J. Smith and J. Course.....	228,687	June 8	623	168	17	1333
Beverages under pressure. Receiver, regulator, and cooler for.....	W. L. Roorbach.....	234,726	Nov. 23	1131	305	18	1197
Bias-cutter.....	W. F. Hood.....	234,476	Nov. 16	809	217	18	1138
Bichromates. Manufacture of.....	H. Pemberton.....	234,145	Nov. 9	391	.....	18	1059
Bicycle.....	H. W. Britton.....	233,723	Oct. 26	1158	322	18	954
Bicycle-brake.....	S. Sawyer.....	225,239	Mar. 9	305	87	17	522
Billiard and other cues.....	J. Creahan.....	233,325	Oct. 19	674	185	18	865
Billiard and other tables, &c. Device for leveling.....	L. J. Richardson.....	233,552	Oct. 19	944	259	18	909
Billiard-chalk holder.....	F. Vane.....	226,944	Apr. 27	958	265	17	937
Billiard-cue cutter and clamp.....	L. Rigollet.....	233,554	Oct. 19	947	260	18	909
Billiard-cushion.....	S. May.....	233,531	Oct. 19	915	252	18	904
Billiard-table.....	W. Espig.....	235,419	Dec. 14	441	125	18	1363
Billiard-table.....	S. R. Mathewson.....	229,625	July 6	130	36	18	28
Billiard-table.....	A. Van Bibber.....	226,212	Apr. 6	77	20	17	759
Billiard-table.....	J. Walsh.....	226,430	Apr. 13	329	94	17	814
Billiard-table chuck.....	V. Estephe.....	235,861	Dec. 28	1000	277	18	1471
Billiard-table cushion.....	M. Bensinger and B. F. Goodrich.....	226,827	Apr. 27	812	227	17	914
Billiard time-register. Automatic.....	H. Von Leesen.....	236,123	Dec. 28	1325	363 364	18	1524

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Drig.	Vol.	Page.
Bin:							
See Flour-bin.							
Grain-bin.							
Meal-bin.							
Binder for books. Metallic self.	C. M. Jeliff	223,642	June 8	582	154	17	1326
Binder for papers, &c.	M. King	234,987	Nov. 30	1459	392	18	1258
Binder for sheet-music	J. S. Shannon	234,150	Nov. 9	396	108	18	1059
Binder for the filing and protection of papers	W. Keenan	230,135	July 20	740	207	18	138
Binder. Temporary	W. H. Bailey	227,715	May 18	735	206	17	1118
Binder. Temporary	J. T. Foster	224,164	Feb. 3	215	63	17	239
Binder. Temporary	A. D. Hoffman	225,012	Mar. 2	34	10	17	462
Binder. Temporary	S. R. Hopkins	228,637	June 8	578	153	17	1325
Binder. Temporary	O. Low	229,046	June 22	1091	297	17	1418
Binder. Temporary	R. Morris	227,699	May 18	710	201	17	1115
Binder. Temporary	C. Richardson	228,931	June 15	948	258	17	1389
Binder. Temporary	F. W. Smith and J. S. Shannon	232,374	Sept. 24	609	167	18	639
Binder. Temporary	C. Snieder	229,195	June 22	1217	342 } 343 }	17	1441
Binder. Temporary	G. C. White and H. Van Zuijen	225,901	Mar. 23	1083	309	17	672
Binder. Temporary	G. F. Willis	228,501	June 8	410	112	17	1301
Binders' and box board.	F. M. Myers	228,102	May 25	1190	338	17	1202
Binders. Knot-tyer for self.	W. Stephens	228,228	June 1	77	23, 24	17	1240
Binding. Flexible metallic	G. S. Eaton	224,407	Feb. 10	500	144	17	305
Bird-cage	A. H. Alverson	227,195	May 4	125	36	17	998
Bird-cage	H. Bishop	228,438	June 8	329	90	17	1289
Bird-cage	F. W. Flato	224,163	Feb. 3	214	62	17	239
Bird-cage	M. Grebner	223,340	Jan. 6	155	40	17	28
Bird-cage	F. T. Pinter	229,631	July 6	140	39	18	29
Bird-cage fastener.	T. L. Maxheimer	230,795	Aug. 3	229	66	18	284
Bird-cage perch	H. Bishop	230,993	Aug. 10	465	132	18	339
Birds. Manufacture of artificial.	C. H. Bodurtha	232,928	Oct. 5	160	42	18	764
Birds, &c. Substance for mounting stuffed.	E. L. Ormsbeo	227,291	May 4	227		17	1015
Birds. Trap for catching.	I. B. Dolley	234,004	Nov. 2	228	61	18	1023
Biscuit cutter and sticker. Combined	I. W. Lincoln	230,294	July 20	927	263	18	167
Bisulphide-of-carbon engine	W. S. Colwell	225,689	Mar. 23	844	246	17	632
Bit:							
See Bridle-bit.							
Check-bit.	Rock-drill bit.						
Reaming-bit.	Wood-bit.						
Bit-brace	C. H. Amidon	226,646	Apr. 20	605	168	17	868
Bit-brace	A. H. Crockford	223,484	Jan. 13	344	92	17	73
Bit-brace	A. D. Goodell	228,811	June 15	818	223	17	1370
Bit-brace	G. L. Holt	225,532	Dec. 14	587	167	18	1387
Bit-brace	S. Rightmyer	225,380	Dec. 14	339	111	18	1355
Bit-brace	N. Spofford	225,768	Mar. 23	940	272	17	647
Bit-brace	N. Spofford	234,624	Nov. 16	998	265	18	1170
Bit-brace	H. L. Stevens	229,197	June 22	1249	343	17	1441
Bit-brace. Ratchet	A. D. Goodell	228,810	June 15	817	223	17	1370
Bit-stock	Q. S. Backus	223,464	Oct. 19	841	232	18	892
Bit-stock	Q. S. Backus	224,517	Nov. 16	854	228	18	1145
Bitters	J. Christophel	229,804	July 13	351		18	68
Blackboard	J. A. Crandall	227,492	May 11	470	135	17	1066
Blackening and burnishing the edges of seam-stays.	F. W. Nichols and H. P. Lancaster	225,557	Dec. 14	615	176	18	1392
Machine for							
Blackening and polishing boots and shoes. Machine for.	P. P. Audoye	228,297	June 1	166	46	17	1253
Blackening-box	J. Lamont	223,929	Jan. 27	886	235	17	181
Blackening-box	E. G. Ward	224,313	Feb. 10	396	111	17	288
Blackening-box holder.	K. C. Atwood	223,314	Oct. 19	663	183	18	863
Blackening machine. Shoe.	P. Audoye	228,018	May 25	1099	313	17	1187
Blacksmith's shears.	W. S. Reeve	226,105	Mar. 30	1348	380	17	726
Blast-furnace	J. M. Hartman	228,528	June 8	440	120	17	1305
Blast-furnace	J. M. Hartman	229,823	July 13	441	121	18	82
Blast-furnace	P. L. Weimer	223,870	Jan. 27	816	218	17	169
Blast-furnace	P. L. Weimer	226,690	Apr. 20	651	181	17	876
Blasting	R. F. L. Hallock	232,640	Sept. 28	921	253	18	699
Blasting-charges. Primer for	A. Nobel	231,348	Aug. 17	870	245	18	401
Bleaching solution of soda or potassa. Preparing an aqueous	P. T. Austen	223,463	Jan. 13	315		17	69
Blind adjuster and fastener	C. L. Raiuhart	230,496	July 27	1202	338	18	218
Blind and shutter. Combined window	H. F. Watson	227,397	May 11	363	107	17	1048
Blind-fastener and slat-operator	W. I. Wooster	230,096	July 13	671	187 } 188 }	18	118
Blind. Inside	J. M. Abbott	223,973	Feb. 3	1	1	17	203
Blind-operator	E. Prescott	231,931	Sept. 7	59	15	18	534
Blind-slat adjuster	J. H. Monk	231,317	Nov. 9	599	163	18	1095
Blind-slat adjuster	J. P. Wile	227,937	May 25	937	236	17	1171
Blind-slat fastening	A. S. Robinson and W. D. Sunderlin	224,653	Jan. 20	546	147	17	116
Blind-slat operator	N. M. Hutton	227,532	May 11	512	147	17	1073
Blind-slat operator	J. H. Reury	229,123	June 22	1235	339	17	1439
Blind-slat retainer.	J. J. Jardine	224,918	Feb. 24	1113	318	17	432
Blind-slats. Metallic tenon for.	A. L. Hill	224,908	Feb. 24	1105	316	17	430
Blind. Window.	J. M. Farrier	225,117	Mar. 2	162	46	17	484
Blind. Window.	P. Janssen	225,151	Dec. 7	110	32	18	1299
Blind. Window.	D. L. Jaques	230,944	Aug. 10	409	118	18	321
Blind. Window.	A. Rolfe	229,226	June 22	1279	352	17	1445
Blind. Window.	J. W. R. Vogdt	230,511	July 27	1215	342	18	230
Block:							
See Building-block							
Head-block.	Reed-block.						
Jointer and colter block.	Saw-mill head-block.						
Plumber-block.	Snatch-block.						
Printing-block.	Stereotype-block.						
Puzzle-block.	Tacklo or pulley block.						
Toy building-block.	Top-prop block.						
Blotter	J. A. Austin	224,124	Feb. 3	178	51	17	233
Blotter	W. P. Dodson	228,208	June 15	814	223	17	1370

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Blotter, rule, and paper-cutter. Combined.....	C. Sneider.....	229,768	July 6	299	83	18	52
Blotting-pad.....	C. M. Lothrop.....	234,878	Nov. 30	1326	357	18	1235
Blow-pipe.....	E. W. Emerton.....	223,326	Jan. 6	143	36	17	26
Blow-pipe.....	T. C. Stevens.....	233,951	Nov. 2	144	39	18	1010
Blow-pipe.....	C. R. Stuntz.....	227,136	May 4	57	15	17	987
Blower. Fan.....	H. Allen.....	228,293	June 1	161	45	17	1252
Blower. Fan.....	J. F. Smethells.....	223,300	Jan. 6	116	29	17	21
Blower or exhaust.....	L. S. Fithian.....	234,014	Nov. 2	237	65	18	1025
Blower or exhaust. Jet.....	J. Zellwegger.....	223,830	Jan. 27	765	204	17	162
Blower. Rotary.....	C. A. Smith.....	232,559	Sept. 21	821	227	18	675
Bluing-package.....	H. Sawyer.....	224,731	Feb. 17	872	249	17	378
Board:							
<i>See</i> Advertising check- Electric switch-board.							
er-board.	End-board.						
Artists' board.	Game-board.						
Bosom-board.	Ironing-board.						
Buckboard.	Stove-board.						
Bulletin-board.	Telegraphic switch-board.						
Center-board.	Telephone switch-board.						
Cerpse - cooling board.	Tobacco-mill board.						
Cutting-board.	Wash-board.						
Board-fastener.....	N. A. Hoernes.....	234,370	Nov. 9	655	179	18	1104
Boat:							
<i>See</i> Canal-boat.	Torpedo-boat.						
Folding boat.							
Boat. Automatically-dumping.....	N. Barney.....	226,960	Apr. 27	973	270	17	939
Boat-detaching apparatus.....	J. L. Knight.....	231,179	Aug. 17	685	193	18	371
Boat-detaching apparatus.....	D. H. Mahan.....	231,675	Aug. 31	1249	351	18	475
Boat gang-plank.....	A. K. Quinby.....	227,834	May 18	860	245	17	1138
Boat-plug.....	L. H. Raymond.....	233,547	Oct. 19	938	258	18	908
Boats. Construction of.....	J. T. Coughlin and A. P. Schneider.....	228,040	May 25	1116	318	17	1190
Boats. Foot-board and steering apparatus for.....	M. F. Davis.....	231,017	Aug. 10	492	138	18	333
Bobbin-winding machine.....	A. Paul.....	233,112	Oct. 12	394	108	18	809
Boiler:							
<i>See</i> Agricultural boiler. Sectional boiler.							
Domestic boiler.	Steam-boiler.						
Egg-boiler.	Steam and hot-water boiler.						
Fire-engine boiler.	boiler.						
Locomotive-boiler.	Vapor-engine boiler.						
Portable-engine boiler.	Wash-boiler.						
Water-tube boiler.							
Boiler.....	A. H. Wagner.....	233,582	Oct. 19	974	269	18	915
Boiler and furnace.....	G. Bell.....	227,475	May 11	452	130	17	1063
Boiler and heater. Combined.....	D. Hawkins.....	225,823	Mar. 23	1004	288	17	658
Boiler and other furnaces.....	W. Ennis.....	234,972	Nov. 30	1443	388	18	1255
Boiler and other furnaces. Steam.....	O. D. Orvis.....	223,238	Jan. 6	36	9	17	9
Boiler cleaner and purifier.....	T. Sharp.....	234,729	Nov. 23	1136	306	18	1198
Boiler-covering.....	T. Merriam.....	231,832	Aug. 31	1436	404	18	504
Boiler, &c., covering.....	I. N. Peirce.....	236,077	Dec. 28	1259	348	18	1514
Boiler fire-box.....	J. Mailer.....	227,278	May 4	215	63	17	1013
Boiler-furnace.....	G. S. Bosworth.....	228,976	June 22	1015	276	17	1407
Boiler-furnace.....	G. S. Bosworth.....	233,194	Oct. 12	489	135	18	826
Boiler-furnace.....	W. M. Fisher.....	225,051	Mar. 2	92	25	17	472
Boiler-furnace.....	P. Kilroy and J. A. Flick.....	235,779	Dec. 21	880	245	18	1443
Boiler-furnace.....	P. W. Lamb.....	235,686	Dec. 21	772	219	18	1425
Boiler-furnace grate.....	C. Hill.....	224,688	Feb. 17	831	236	17	371
Boiler furnace. Self-feeding steam.....	W. S. Salisbury.....	226,203	Apr. 6	67	17	17	758
Boiler furnace. Steam.....	S. E. Babcock.....	230,218	July 20	835	236	18	153
Boiler furnace. Steam.....	H. Cowell.....	223,635	Jan. 20	529	142	17	114
Boiler furnace. Steam.....	W. H. Harrison.....	231,315	Aug. 17	832	234	18	396
Boiler furnace. Steam.....	M. C. Jones.....	229,827	July 13	378	105	18	72
Boiler furnace. Steam.....	J. Mahoney.....	225,402	Mar. 9	501	145	17	553
Boiler furnace. Steam.....	H. McElroy.....	232,534	Sept. 21	796	221	18	671
Boiler furnace. Steam.....	C. F. Pike.....	223,606	Jan. 13	482	130	17	96
Boiler furnace. Steam.....	J. Wavish.....	230,373	July 20	1016	287	18	182
Boiler-furnace. Straw-burning.....	H. K. Day.....	223,279	Jan. 6	86	21	17	17
Boiler furnaces. Air-nozzle for steam.....	D. C. Cregier.....	223,841	Jan. 27	774	207	17	163
Boiler-scale collector.....	W. Youngblood and T. J. Holmes.....	227,605	May 11	596	170	17	1087
Boiler-setting.....	J. A. Maxwell and J. P. Silliman.....	234,136	Nov. 9	381	105	18	1057
Boiler-tubes. Apparatus for securing.....	W. Tully.....	233,050	Oct. 5	307	85	18	789
Boiler-tubes. Fastening.....	C. Graham.....	226,741	Apr. 20	705	196	17	885
Boiler-tubes. Fastening.....	C. Graham.....	232,259	Sept. 14	461	127	18	609
Boiler-tubes. Securing.....	E. McGovern.....	234,312	Nov. 9	593	162	18	1094
Boiler-tubes. Securing.....	C. H. Raymond.....	233,374	Oct. 19	733	201	18	874
Boilers and other vessels. Manufacture of.....	L. S. White.....	235,834	Dec. 21	946	264	18	1455
Boilers. Composition for preventing incrustation of.....	H. Heimann.....	235,633	Dec. 21	714	.....	18	1415
Boilers to prevent incrustation. Device for feeding fluid into.....	W. Linehan.....	225,622	Mar. 16	756	223	17	608
Boilers. Water-indicator for.....	J. Bridges.....	235,409	Dec. 14	430	121	18	1361
Bolt:							
<i>See</i> Alarm-bolt.	Flush-bolt.						
Car-door bolt.	King-bolt.						
Chain-bolt.	Screw-bolt.						
Door-bolt.	Whiffletree-clip bolt.						
Flour-bolt.							
Bolt.....	A. Climie.....	235,741	Dec. 21	839	234	18	1436
Bolt and rivet cutter.....	R. Fawcett.....	229,987	July 13	554	154	18	106
Bolt and rivet machine.....	J. H. Alker.....	224,264	Feb. 10	335	97	17	270
Bolt-cutter.....	A. Fisher.....	231,299	Aug. 17	819	229	18	399
Bolt-cutter.....	H. K. Porter.....	226,190	Apr. 6	50	13	17	753
Bolt heading and pointing machine.....	A. Magnuson.....	226,090	Mar. 30	1328	374	17	725
Bolt heading machine.....	J. B. and L. C. Clark.....	230,920	Aug. 10	383	110	18	312
Bolt holder.....	A. M. Colt.....	226,836	Apr. 27	822	229	17	916



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Bolt mechanism for locking ranges of cells	G. F. Kindt	224,546	Feb. 17	665	190	17	343
Bolt or strap fastener	N. Thompson	228,697	June 8	632	172	17	1334
Bolts and rivets. Machine for making	J. Morgan	233,685	Oct. 26	1113	310	18	947
Bolts. Device for swaging screw-threads on eye	T. Burke	228,033	May 25	1111	316	17	1189
Bolts. Holder for galvanizing	W. P. Breeding	229,366	June 29	1461	402	17	1478
Bolts. Tool for pointing	P. Hartin	235,766	Dec. 21	866	242	18	1440
Bolting apparatus for flour-mills	L. Gathmann	228,751	June 15	735	202 203	17	1359
Bolting-reel	E. P. Hann and G. W. Decker	233,411	Oct. 10	783	215 216	18	882
Bolting-reel	J. M. Springer	228,409	June 1	277	78	17	1271
Bolting-screens. Cleansing the meshes of	H. Hamper	229,121	June 22	1172	321	17	1430
Bonds, notes, and other evidences of value	S. R. Dummer	225,748	Mar. 23	916	266	17	644
Bone-black. Kiln for drying and revivifying	W. R. Elmenhorst	235,942	Dec. 28	1103	305	18	1488
Bone to imitate stag-horn. Treating	C. Keyworth	229,145	June 22	1199	328	17	1434
Book	W. A. Cooke, Jr.	227,098	May 4	8	3	17	980
Book. Autograph	R. Schuerch	227,182	May 4	107	31	17	995
Book-binder's gold-brushing machine	W. Zimmerman and J. B. Waterston	235,328	Dec. 7	311	88	18	1333
Book-binder's press	J. W. Jones	233,625	Oct. 26	1047	291	18	936
Book-binding	L. Finger	233,607	Oct. 26	1025	285	18	932
Book-binding	J. J. Hanlon	223,672	Jan. 20	571	154	17	120
Book-binding	J. W. Loveridge	231,067	Aug. 10	543	133	18	342
Book. Blank	F. H. Richardson	226,930	Apr. 27	942	261	17	934
Book-case	M. C. Dodge	234,461	Nov. 16	791	212	18	1135
Book-case	F. Tocci	228,141	May 25	1230	349	17	1209
Book. Copy	E. P. Newman	235,448	Dec. 14	483	136	18	1370
Book. Copy	E. P. Newman	236,070	Dec. 28	1253	346	18	1512
Book. Copying	S. Hano	224,529	Feb. 17	644	185	17	339
Book-cover	J. A. Möller	230,036	July 13	609	169	18	108
Book-cover protector	F. W. Wardwell and C. E. Lettenmayer	234,096	Nov. 2	324	89	18	1040
Book-covers. Metallic guard for	G. W. Emerson	230,256	July 20	889	252	18	161
Book for holding blank forms	A. J. Clark	225,343	Mar. 9	435	126	17	542
Book-holder	W. B. Daugherty	234,460	Nov. 16	790	212	18	1135
Book-holder	W. F. Eppler	231,295	Aug. 17	815	228	18	392
Book-holder	J. L. Highbarger	223,589	Jan. 13	465	126	17	94
Book holder. Receipt	R. B. Dickey	234,001	Nov. 2	224	60	18	1023
Book-mark	H. R. McCalmont	229,626	July 6	132	37	18	28
Book. Memorandum	S. L. Horton	224,335	Feb. 10	423	120	17	292
Book-press	W. E. Waters	234,097	Nov. 2	325	90	18	1040
Book-rack	J. Murphy	229,740	July 6	263	74	18	47
Books, cards, and paper. Machine for cutting the corners of	W. T. Pringle	224,475	Feb. 10	576	166	17	317
Books. Illustrating	M. L. H. Smith	229,016	June 22	1061	289	17	1414
Books with metallic staples. Machine for stitching	C. Lieh	226,086	Mar. 30	1324	373	17	722
Books with staples. Machinery for stitching	J. C. Smyth	223,252	Jan. 6	55	13	17	12
Books with wire staples. Machine for binding	W. L. Coop	228,874	June 15	889	242 243	17	1380
Boot	E. A. Bailey	233,461	Oct. 19	838	231	18	891
Boot	R. Church	225,569	Mar. 16	697	205	17	597
Boot and gaiter. Rubber	G. H. Sanford	228,398	June 1	267	75	17	1270
Boot and shoe	J. C. Daggett	227,153	May 4	79	22	17	990
Boot and shoe	A. Gemmell and A. Boyd	233,148	Oct. 12	438	120	18	817
Boot and shoe	W. H. Hannaford	230,273	July 20	905	257	18	163
Boot and shoe	P. Kelly	229,144	June 22	1198	328	17	1434
Boot and shoe	D. A. McDonald	226,532	Apr. 13	455	128	17	833
Boot and shoe	D. A. McDonald	231,830	Aug. 31	1435	403	18	504
Boot and shoe	J. T. Shaw	225,427	Mar. 9	525	151	17	557
Boot and shoe	W. H. Shurtleff	224,361	Feb. 10	450	129	17	297
Boot and shoe	G. Taylor	227,318	May 4	259	75	17	1020
Boot and shoe	S. E. Thecker	231,632	Aug. 24	1187	332	18	458
Boot and shoe	R. W. Witham	225,451	Mar. 9	550	159	17	561
Boot and shoe calk plate	J. B. Weir	225,897	Mar. 23	1078	308	17	671
Boot and shoe counter brace	J. G. Whittier	225,201	Mar. 2	248	70	17	500
Boot and shoe counter or heel stiffener	V. B. Morton	226,771	Apr. 20	734	205	17	890
Boot and shoe counter stay	S. L. Bailey and C. A. Weage	231,699	Aug. 31	1276	359	18	479
Boot and shoe counter stiffeners. Machine for forming flanges on	H. G. Farr	230,259	July 20	891	253	18	161
Boot and shoe crimping machine	J. A. and A. C. Ambler	234,163	Nov. 9	412	112	18	1062
Boot and shoe edge burnishing machine	H. D. Stone	223,772	Jan. 20	676	182	17	137
Boot and shoe edge plane	I. A. Dnnham	224,769	Feb. 24	944	269	17	405
Boot and shoe edge setting machine	C. K. Bradford	229,517	July 6	8	3	18	10
Boot and shoe fastening	H. F. Whidden	234,698	Nov. 23	1101	296	18	1192
Boot and shoe finishing machinery	J. G. Buzzell	233,067	Oct. 12	336	93	18	800
Boot and shoe heel	T. Cook	226,651	Apr. 20	611	170	17	869
Boot and shoe heel	J. Leycuras	235,262	Dec. 7	240	66	18	1321
Boot and shoe heel	F. Richardson	236,086	Dec. 28	1268	350	18	1515
Boot and shoe heel	F. Richardson	236,087	Dec. 28	1269	350	18	1515
Boot and shoe heel	J. G. Ross	234,430	Nov. 16	754	203	18	1129
Boot and shoe heel burnishing machine	G. L. Newton	229,168	June 22	1220	334	17	1437
Boot and shoe heel linings. Device for repairing	C. E. Whittlesey	228,709	June 8	646	175	17	1326
Boot and shoe heel plate	D. B. Watkins	224,365	Feb. 10	457	131	17	298
Boot and shoe heel stiffeners. Machine for molding	C. E. Kennard	227,113	May 4	24	8	17	982
Boot and shoe heel trimming machine	H. F. Halbach	232,180	Sept. 14	365	101	18	592
Boot and shoe heel machine	T. Cowhurn	230,242	July 20	861	244 245 246	18	157
Boot and shoe jack	Z. Beaudry	231,527	Aug. 24	1069	300	18	440
Boot and shoe jacking mechanism	J. G. Ross	231,655	Aug. 31	1259	324	18	477
Boot and shoe lasting device	A. Davidson	225,806	Mar. 23	987	283	17	655
Boot and shoe lasting machine	O. Redmond	227,132	May 4	46	14	17	986
Boot and shoe lining	A. M. Daniels	232,694	Sept. 28	924	271	18	709
Boot and shoe nail	L. Soule	230,585	July 27	1296	365	18	235
Boot and shoe. Rubber	W. R. Miller	227,811	May 18	835	236	17	1154
Boot and shoe seam	J. Popham	230,654	Aug. 3	72	20	18	258

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Boot and shoe shank .....	F. P. Buren and W. W. Fenton.....	226,486	Apr. 13	397	112	17	825
Boot and shoe shank stiffener .....	A. Leonard, Jr.....	235,541	Dec. 14	599	170	18	1389
Boot and shoe shank support and protector.....	E. P. Hadley and T. Joyce.....	234,030	Nov. 2	254	69	18	1027
Boot and shoe sole .....	L. Darozir and L. Dion.....	223,712	Jan. 20	613	164	17	126
Boot and shoe sole and heel plate .....	W. P. Whittier, Jr.....	226,894	Apr. 27	898	249	17	928
Boot and shoe sole buffer .....	J. W. Rogers.....	227,839	May 18	864	246	17	1139
Boot and shoe sole burnishing machine .....	D. C. Mathews.....	225,228	Mar. 9	292	83	17	519
Boot and shoe sole channeling and pricking mechanism.....	M. A. C. Holmes.....	227,167	May 4	93	26	17	993
Boot and shoe sole channeling and trimming machine.....	J. S. Turner.....	232,382	Sept. 21	619	{ 170 171 }	18	641
Boot and shoe sole edge trimmer .....	C. H. Helms.....	234,869	Nov. 30	1312	354	18	1233
Boot and shoe sole shaping machine.....	J. B. Johnson.....	230,187	July 20	798	225	18	148
Boot and shoe soles. Extensible pattern for cutting.....	J. P. Simon and J. Lex.....	225,878	Mar. 23	1062	303	17	668
Boot and shoe soles. Machine for forming imitation fair-stitches to the edges of .....	B. J. Tayman and J. Bennor.....	234,503	Nov. 16	837	224	18	1142
Boot and shoe soles. Mechanism for abrading and polishing .....	J. A. Ambler.....	232,323	Sept. 21	545	151	18	629
Boot and shoe soles. Polishing-wheel for .....	W. W. Crocker.....	233,211	Oct. 12	507	141	18	829
Boot and shoe. Spring-soled.....	T. Nuthmann.....	226,541	Apr. 13	463	131	17	835
Boot and shoe stiffeners. Machinery for molding.....	S. Prior.....	235,962	Dec. 28	1129	{ 312 313 }	18	1492
Boot and shoe stretcher .....	F. A. Fay.....	232,478	Sept. 21	734	204	18	660
Boot and shoe tree .....	J. A. Ambler.....	224,506	Feb. 17	617	179	17	335
Boot and shoe tree .....	P. Marsielje.....	223,811	Jan. 27	740	199	17	158
Boot and shoe upper .....	F. Brigham, J. S. Bradley, W. F. and W. B. Brigham.....	224,269	Feb. 10	343	99	17	280
Boot and shoe uppers. Clamp for holding .....	E. S. Pratt.....	226,191	Apr. 6	51	13	17	755
Boot and shoe uppers. Lasting.....	G. W. Copeland, E. Woodward, and M. Brock.....	224,516	Feb. 17	629	182	17	337
Boot and shoe uppers. Machine for crimping.....	C. B. Long.....	226,866	Apr. 27	866	241	17	923
Boot and shoe. Water-proof.....	C. A. Ensign.....	231,293	Aug. 17	813	228	18	392
Boot and shoe welt.....	E. S. Pratt.....	226,192	Apr. 6	52	13	17	755
Boot. India-rubber .....	C. A. Ensign.....	231,294	Aug. 17	814	228	18	392
Boot. India-rubber .....	G. Watkinson.....	228,498	June 8	407	111	17	1300
Boot-jack .....	D. Witt.....	227,939	May 25	998	286	17	1172
Boot-jack and stand. Combined.....	D. W. Gatrell.....	235,054	Nov. 30	1538	414	18	1271
Boot or shoe measure .....	G. H. Cushman.....	225,210	Mar. 9	270	77	17	516
Boot. Plowman's.....	S. Brown.....	225,103	Mar. 2	145	42	17	481
Boot. Rubber .....	G. Watkinson.....	223,783	Jan. 20	689	186	17	139
Boot-stretcher .....	J. Lyons.....	229,156	June 22	1209	331	17	1436
Boot-tree.....	G. W. Badger.....	224,067	Feb. 3	114	63	17	222
Boot-tree.....	A. W. Cox.....	224,517	Feb. 17	630	182	17	337
Boot-treeing apparatus.....	J. A. Ambler.....	230,601	Aug. 3	4	1	18	247
Boot-treeing apparatus.....	J. A. Ambler and E. L. Wires.....	227,669	May 18	674	192	17	1109
Boot-treeing apparatus.....	F. P. Simonds.....	232,078	Sept. 7	241	66	18	564
Boot-treeing machine .....	G. W. Copeland and J. E. Crisp.....	234,658	Nov. 23	1050	283	18	1185
Boot-treeing machine .....	J. E. Crisp.....	233,210	Oct. 12	507	140	18	829
Boot-treeing machine .....	J. E. Crisp and G. W. Copeland.....	230,752	Aug. 3	178	52	18	275
Boot-treeing machine .....	J. E. Crisp and G. W. Copeland.....	232,944	Oct. 5	176	47	18	767
Boot-treeing machine .....	E. F. Grandy.....	234,401	Nov. 16	723	{ 194 195 }	18	1124
Boot-treeing machines. Tool for.....	J. E. Crisp.....	230,406	July 27	1092	{ 307 308 }	18	200
Boot-upper .....	H. E. Van Benschoten.....	230,974	Aug. 10	442	127	18	326
Boots and shoes. Apparatus for vulcanizing rubber.....	T. C. Weeks and F. Russell.....	233,386	Oct. 19	747	204	18	876
Boots and shoes. Horn-bearing for .....	J. F. Hudson and J. Burrill.....	227,631	May 18	628	180	17	1103
Boots and shoes. Machine for cleaning and polishing.....	P. Hille.....	228,073	May 25	1158	{ 329 330 }	17	1197
Boots and shoes. Machine for inserting screws in .....	J. H. Gardiner.....	226,303	Apr. 6	178	52	17	778
Boots and shoes. Machinery for crimping leather for .....	H. C. Pease.....	226,876	Apr. 27	878	244	17	924
Boots and shoes. Making inner soles for .....	J. F. Ross.....	229,556	July 6	60	16	18	17
Boots and shoes. Manufacture of .....	H. R. Adams.....	234,161	Nov. 9	409	111	18	1062
Boots and shoes. Manufacture of .....	L. E. De Warn.....	228,007	May 25	1091	310	17	1185
Boots and shoes. Manufacture of .....	E. S. Pratt.....	226,193	Apr. 6	53	13, 14	17	755
Boots and shoes. Manufacture of .....	B. P. Scott.....	230,071	July 13	647	180	18	114
Boots and shoes. Manufacture of rubber .....	G. M. Allerton.....	225,091	Mar. 2	134	.....	17	480
Boots and shoes. Manufacture of rubber .....	T. C. Weeks.....	233,385	Oct. 19	745	204	18	876
Boots and shoes. Repairing .....	M. A. Mallalieu.....	230,560	July 27	1267	358	18	230
Boots and shoes. Sand-paper roll for .....	C. R. Rathbun and F. W. Adams.....	226,104	Mar. 30	1346	379	17	726
Boots and shoes. Shave for making Scotch sole-edges on .....	A. E. Johnson.....	234,038	Nov. 2	264	72	18	1029
Boots. Combined counter-stiffener and insole for rubber .....	G. D. Marggraf.....	225,016	Mar. 2	39	12	17	463
Boots. Last or form for shaping rubber.....	J. W. Tufts.....	226,574	Apr. 13	496	139	17	840
Borer and excavator. Earth.....	J. W. Carley.....	234,532	Nov. 16	869	232	18	1148
Boring and mortising machine .....	C. R. Brinckerhoff.....	230,735	Aug. 3	156	46, 47	18	272
Boring-bit gage .....	W. F. Rutter.....	232,851	Oct. 5	67	19	18	750
Boring-machine .....	D. Forniraseo.....	234,764	Nov. 23	1173	316	18	1204
Boring, sawing, grinding, and rabbeting machine. } Combined.....	H. Boerstler.....	229,234	June 29	1291	{ 354 355 356 }	17	1456
Boring-tool.....	F. Pentlarge.....	234,686	Nov. 23	1088	292	18	1190
Boring tool. Metal.....	L. C. Little.....	225,291	Mar. 9	376	110	17	532
Bosom-board .....	H. S. Foster.....	232,605	Sept. 28	880	243	18	692
Bosom-board .....	A. P. Ryan.....	229,475	June 29	1583	438	17	1495
Bottle.....	E. P. Putnam.....	234,807	Nov. 23	1237	333	18	1214
Bottle and glass stopper. Glass.....	R. P. Smith.....	225,654	Mar. 16	788	231	17	614
Bottle and stopper .....	J. C. De La Vergne.....	232,468	Sept. 21	724	201	18	658
Bottle and stopper. Ointment .....	R. Gordon.....	230,126	July 20	728	204	18	137
Bottle. Dropping.....	F. M. Dixon.....	231,003	Nov. 2	228	61	18	1023
Bottle-filler .....	G. D. Barr.....	233,187	Oct. 12	482	133	18	825
Bottle-filler .....	E. Kleiber.....	236,043	Dec. 28	1223	337	18	1507
Bottle for aerated liquids. Siphon.....	J. Matthews.....	231,597	Aug. 24	1151	322	18	453
Bottle, &c., lock.....	A. T. Boono.....	228,170	June 1	12	4	17	1229

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. G.	Vol.	Page.
Bottle-necks. Machine for finishing.....	T. W. Synnott.....	226,889	Apr. 27	851	248	17	926
Bottle. Nursing.....	E. A. Barton.....	234,224	Nov. 9	492	135	18	1077
Bottle. Nursing.....	J. E. Potter.....	224,557	Feb. 17	677	193	17	345
Bottle. Nursing.....	J. Thompson.....	227,075	Apr. 27	1119	308	17	962
Bottle-stopper.....	A. Albertson.....	228,433	June 8	325	89	17	1289
Bottle-stopper.....	A. Albertson.....	228,434	June 8	326	89	17	1289
Bottle-stopper.....	A. Albertson.....	231,518	Aug. 24	1060	297	18	439
Bottle-stopper.....	J. J. Allison.....	224,122	Feb. 3	176	50	17	232
Bottle-stopper.....	J. J. Allison.....	228,582	June 8	509	137	17	1316
Bottle-stopper.....	T. G. Ansten.....	230,730	Aug. 3	152	45	18	271
Bottle-stopper.....	G. D. Dudley and D. Sherwood.....	223,325	Jan. 6	141	36	17	25
Bottle-stopper.....	J. Erdmann.....	229,595	July 6	103	27	18	24
Bottle-stopper.....	N. Fritzner.....	223,283	Jan. 6	92	23	17	18
Bottle-stopper.....	N. Fritzner.....	229,815	July 13	365	101	18	70
Bottle-stopper.....	E. Hollender.....	228,355	June 1	219	62	17	1263
Bottle-stopper.....	J. Q. Houts.....	234,035	Nov. 2	261	71	18	1029
Bottle-stopper.....	C. G. Hutchinson.....	225,476	Mar. 16	593	172	17	579
Bottle-stopper.....	H. C. Johnson.....	232,404	Sept. 21	645	178	18	645
Bottle-stopper.....	J. F. King.....	230,423	July 27	1115	313	18	204
Bottle-stopper.....	J. Klee.....	231,230	Aug. 17	749	209	18	361
Bottle-stopper.....	J. G. Krieger.....	228,650	June 8	591	157	17	1328
Bottle-stopper.....	P. Miles.....	232,613	Sept. 28	690	246	18	693
Bottle-stopper.....	S. S. Newton.....	223,531	Jan. 13	397	106	17	83
Bottle-stopper.....	S. S. Newton.....	225,298	Mar. 9	384	112	17	533
Bottle-stopper.....	S. S. Newton.....	232,362	Sept. 21	595	163	18	637
Bottle-stopper.....	D. S. Paisley.....	233,796	Oct. 26	1237	344	18	969
Bottle-stopper.....	E. A. Parker.....	231,678	Aug. 31	1253	352	18	476
Bottle-stopper.....	M. W. Patten.....	226,926	Apr. 27	938	260	17	934
Bottle-stopper.....	E. P. Raether.....	230,054	July 13	627	175	18	111
Bottle-stopper.....	M. Rubin.....	224,479	Feb. 10	579	167	17	318
Bottle-stopper.....	A. C. Schulz.....	231,451	Aug. 24	988	278	18	428
Bottle-stopper.....	A. Walker.....	233,303	Oct. 12	624	172	18	849
Bottle-stopper.....	S. L. Warren.....	229,214	June 22	1268	348	17	1444
Bottle stopper and fastener.....	R. McCully.....	223,526	Jan. 13	392	104	17	82
Bottle stopper and fastener.....	H. W. Putnam.....	224,304	Feb. 10	384	108	17	286
Bottle stopper and fastening.....	W. H. Bate.....	231,524	Aug. 24	1066	300	18	440
Bottle stopper and fastening.....	J. M. Lewin.....	230,791	Aug. 3	220	64	18	282
Bottle-stopper and stopper-fastener.....	W. Winkel.....	229,850	July 13	406	112	18	77
Bottle-stopper fastener.....	J. E. Brundage.....	224,327	Feb. 10	410	117	17	290
Bottle-stoppers. Pad for.....	J. F. King.....	232,188	Sept. 14	373	104	18	593
Bottle-stopping device.....	E. Hollender.....	227,529	May 11	508	146	17	1073
Bottle-washing machine.....	C. Michel.....	225,231	Mar. 9	295	84	17	520
Bottle-wrapper.....	M. V. Kacer.....	234,582	Nov. 16	955	253	18	1162
Bottle-wrapper.....	H. J. Mark and W. F. Martinek.....	230,710	Aug. 3	134	39	18	268
Bottle-wrapper.....	I. Swope.....	228,002	May 25	1086	309	17	1185
Bottles, jars, and similar vessels. Stopping or closing.....	H. Barrett.....	230,605	Aug. 3	8	2	18	248
Bottles, lamp-chimneys, tumblers, &c. Machine for washing.....	M. Cody.....	232,458	Sept. 21	713	197	18	656
Bottles, &c. Machine for washing and soaking.....	J. S. Clarke.....	228,868	June 15	883	241	17	1380
Bottles, &c. Wrapper or envelope for.....	R. H. Thompson.....	229,775	July 6	305	85	18	53
Bottling and barreling malt and fermented liquids under pressure. Method of and apparatus for.....	J. C. De La Vergne and J. J. Suckert.....	233,332	Oct. 19	680	187	18	865
Bottling-machine.....	A. W. Gillman and S. Spencer.....	228,625	June 8	563	149	17	1323
Bottling-machine.....	C. G. Hutchinson.....	225,475	Mar. 16	591	172	17	578
Bottling-machines. Attachment for.....	M. W. Patten.....	226,927	Apr. 27	939	260	17	934
Bottling or canning substances. Apparatus for.....	P. Miles.....	228,828	June 15	839	229	17	1373
Bongie.....	E. Pfarre.....	229,633	July 6	140	39	18	29
Bongies, stomach-pumps, and other surgical instruments from celluloid, &c. Manufacture of.....	G. Otto.....	235,958	Dec. 28	1125	.....	18	1491
Bow.....	J. B. Robinson.....	224,043	Feb. 3	79	24	17	217
Bow-and-arrow rack.....	E. T. Church.....	223,667	Jan. 20	566	153	17	119
Bow. Cross.....	C. Sanftleben and H. Russel.....	230,896	Aug. 10	362	105	18	313
Bow-strings. Clutch for.....	C. M. Beard.....	228,302	June 1	171	47	17	1254
Bow-strings. Clutch for.....	W. Burnham.....	229,089	June 22	1140	311	17	1425
Box:							
See Ash-box.....	Mailing-box.....						
Axle-box.....	Match-box.....						
Ballot-box.....	Nailless box.....						
Bath-box.....	Package-box.....						
Blacking-box.....	Packing-box.....						
Boiler fire-box.....	Pamphlet-box.....						
Brick-press box.....	Paper box.....						
Casting-box.....	Paper lock-box.....						
Check-box.....	Pill-box.....						
Compass-box.....	Pop-box.....						
Conveyer-box.....	Post-office box.....						
Core-box.....	Refrigerator packing-box.....						
Dye-wood box.....	Service-box.....						
Eave-box.....	Service-pipe box.....						
Electro-magnetic motor box.....	Show-box.....						
Fare-box.....	Sluice-box.....						
Feed-box.....	Smoke-box.....						
Filing-box.....	Spool-box.....						
Fire-alarm signal-box.....	Stamping-machine die-box.....						
Journal-box.....	Staffing-box.....						
Lace show-box.....	Telegraph signal-box.....						
Letter-box.....	Tobacco-box.....						
Locomotive fire-box.....	Toy money-box.....						
Lunch-box.....	Wagon-box.....						
	Wooden box.....						
	Work-box.....						
Box.....	D. Dunscomb.....	226,502	Apr. 13	422	118	17	828
Box.....	H. W. Goodnow.....	225,978	Mar. 30	1202	341	17	703
Box, &c.....	A. Hopfen.....	234,280	Nov. 9	557	152	18	1087

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr's.	Vol.	Page.
Box	T. S. Lambert	234,297	Nov. 9	578	157	18	1091
Box	W. Livingstone	233,265	Oct. 12	573	159	18	840
Box	J. P. Noyes	234,323	Nov. 9	605	165	18	1096
Box-clamp	S. Murry	231,604	Aug. 24	1159	324	18	454
Box-fastener	H. F. Billings	235,335	Dec. 14	348	95	18	1347
Box-fastener	O. N. Brainerd	229,857	July 13	413	114	18	78
Box-fastener	J. Casey	224,647	Feb. 17	755	222	17	363
Box-fastener	H. E. Clinton	233,984	Nov. 2	190	49	18	1018
Box-fastener	W. Jones	233,252	Oct. 12	561	155	18	838
Box-fastener	A. J. Millard	230,799	Aug. 3	232	67	18	284
Box-fastener	W. Weis	227,082	Apr. 27	1128	310	17	963
Box-filler. Automatic	R. Pickering	225,072	Mar. 2	114	32	17	476
Box for holding embroideries, &c.	W. Stauder	223,958	Jan. 27	916	245	17	185
Box for holding ice-cream, &c.	F. Watkins	230,452	July 27	1154	325	18	210
Box-nailing machine	W. H. Brock	230,230	July 20	844	239	18	154
Box-nailing machines. Nail-feeder for	G. H. Perkins, G. Bozorth, and W. S. Marble	234,803	Nov. 23	1230	331	18	1213
Box smoothing-iron	J. M. Lomasney	224,552	Feb. 17	671	192	17	344
Box-trimming machine	T. Vanier	236,120	Dec. 28	1318	362	18	1523
Boxes and other receptacles. Material to be used in the construction of	G. W. Bradley	231,001	Aug. 10	472	134	18	330
Boxes. Device for fastening tapes to	E. A. J. Manneck	232,285	Sept. 14	492	137	18	614
Boxes. Manufacture of celluloid	G. F. Whiting	232,095	Sept. 7	260	71	18	506
Brace:							
See Bit-brace.	Fence-brace.						
Carriage-body corner-brace.	Hand-brace.						
Carriage-top brace.	Pantaloons-brace.						
Chair-brace.	Shoulder-brace.						
Dental jaw-brace.	Shoulder and back brace.						
	Vehicle-spring brace.						
Bracelet	W. Ballou	233,186	Oct. 12	481	132	18	824
Bracelet	A. Barbier and F. Maloubier	228,723	June 15	704	193	17	1355
Bracelet	C. B. Bishop	227,476	May 11	453	130	17	1063
Bracelet	C. B. Bishop	229,360	June 29	1456	400	17	1477
Bracelet	D. S. Cooke	227,149	May 4	76	21	17	990
Bracelet	J. M. Cookingham	228,039	May 25	1116	318	17	1190
Bracelet	W. P. Dolloff	232,116	Sept. 14	288	81	18	579
Bracelet	W. P. Dolloff	234,858	Nov. 30	1300	350	18	1231
Bracelet	W. C. Edge	223,669	Jan. 20	567	153	17	119
Bracelet	C. E. Hayward	228,348	June 1	214	60	17	1262
Bracelet	F. Kursh	235,637	Dec. 21	717	204	18	1416
Bracelet	J. A. Riley and C. S. Freer	229,276	June 29	1340	368	17	1462
Bracelet	J. Sweet	225,661	Mar. 16	796	233	17	615
Bracelet	A. Vcster	228,425	June 1	292	82	17	1274
Bracelet-clasp	H. Murray	231,235	Aug. 17	754	211	18	382
Bracelet-clasp	C. H. Shaw	232,212	Sept. 14	402	111	18	593
Bracelet. Rubber	D. Stone	226,564	Apr. 13	487	137	17	838
Bracelets. Chain fabric for	W. C. Edge	228,746	June 15	731	201	17	1359
Bracelets. Manufacture of	E. W. Welbon	224,620	Feb. 17	758	214	17	358
Bracket:							
See Adjustable bracket.	Pump-bracket.						
Curtain-bracket.	Shinglers' bracket.						
Cornice-bracket.	Shingling-bracket.						
Lamp-bracket.	Suspension-bracket.						
Metal bracket.							
Bracket-holder and bracket	L. K. Williams	231,976	Sept. 7	130	32, 33	18	545
Bracket-hook	J. S. Lash	228,652	June 8	592	158	17	1328
Braid-holder	W. P. Deane	227,964	May 25	1037	295	17	1177
Braid-holder	W. P. Deane	227,965	May 25	1037	295	17	1178
Braid-holder	D. Goff	226,061	Mar. 30	1209	361	17	718
Braid, &c., holder	W. P. Deane	228,880	June 15	896	245	17	1381
Braid-pin	A. W. Williams	223,620	Jan. 13	502	135	17	99
Brake:							
See Air-brake.	Sewing-machine brake.						
Bicycle-brake.	Sled-brake.						
Car-brake.	Steam-brake.						
Electric brake.	Steam or fluid brake.						
Harvester-brake.	Steam-railway brake.						
Hoisting-machine brake.	Vacuum and air brake.						
Pressure-brake.	Vehicle-brake.						
Pump-brake.	Wagon-brake.						
Brake-lever	A. C. Fish	225,358	Mar. 9	451	131	17	545
Brake-lever	A. C. Fish	226,508	Apr. 13	429	120	17	829
Brake-lever	J. J. Padden	232,410	Sept. 21	652	179 } 180 }	18	646
Brake-pipe coupling and valve	C. G. Welch	224,256	Feb. 3	318	92	17	256
Brake-shoe	G. A. Bullock	232,933	Oct. 5	166	44	18	765
Brake-shoe	H. R. McAlister	224,456	Feb. 10	557	160	17	314
Brau-cleaver	L. Gathmann	228,340	June 1	207	58	17	1260
Brau-cleaver and middlings-separator	A. M. Hobbs	232,272	Sept. 14	475	132	18	611
Brau. Machine for cleaning and treating	J. Anshutz	234,843	Nov. 30	1287	345	18	1229
Brau, &c. Machine for packing	W. L. Williams	235,322	Dec. 7	304	86	18	1332
Brauding-machine	J. H. Macy	230,427	July 27	1119	314 } 315 }	18	204
Bread. Molding	D. F. Bremner	234,166	Nov. 9	416	113	18	1063
Breakwater	H. Case	227,483	May 11	460	132	17	1064
Breakwater	L. Kirkup	226,663	Apr. 20	624	174	17	872
Breakwater and pier	A. M. Elliott	230,537	July 27	1244	350	18	225
Breast-strap slide	S. Ward	228,145	May 25	1234	350	17	1209
Breastpin	L. P. and L. P. Jeanne	235,683	Dec. 21	766	218	18	1424
Breastpin	G. D. Stevens	227,594	May 11	584	167	17	1085
Bretzel-machine	H. Huber	223,917	Jan. 27	870	231	17	178
Bretzel-machine	W. Lampert and H. Huber	224,446	Feb. 10	547	157	17	313

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Bretzels previous to baking. Apparatus and process for preparing	W. Lampert	229,320	June 29	1401	384	17	1470
Brewers' cellars. Apparatus for purifying the air in	F. W. Wiesebrock	231,129	Aug. 10	611	173	18	353
Brewers' grains. Drier for	F. W. Wiesebrock	231,384	Aug. 17	908	255	18	407
Brick	J. S. Smith	229,766	July 6	297	83	18	52
Brick and tile machine	J. C. McKenzie	233,535	Oct. 19	919	253 254	18	905
Brick and tile machine	J. W. Penfield	225,995	Mar. 30	1222	345 346	17	706
Brick and tile machines. Auger or forcing-screw for	A. L. Brewer	233,320	Oct. 19	669	184	18	864
Brick-drying apparatus	W. Pieper and J. Creager	226,188	Apr. 6	48	12	17	754
Brick. Fire	A. E. Hunt	228,901	June 15	916		17	1384
Brick for evaporating-pans	G. W. Russell	226,114	Mar. 30	1357	382	17	727
Brick-kiln	J. Blum	231,893	Sept. 7	19	4	18	527
Brick linings. Laying	W. I. Mann and R. R. Singer	229,724	July 6	245	67, 68	18	44
Brick-machine	W. B. Aitken	227,668	May 18	672	192	17	1109
Brick-machine	T. H. Andrews	233,909	Nov. 2	92	24, 25	18	1002
Brick-machine	W. L. Gregg	229,247	June 29	1306	360 361	17	1458
Brick-machine	C. V. Hemmenway, F. W. and W. H. Bennett, and T. Kirk.	225,283	Mar. 9	367	107 108	17	531
Brick-machine	R. M. Johnson	228,969	June 15	987	268 269	17	1395
Brick-machine	J. A. Reeder	225,418	Mar. 9	516	149	17	555
Brick-machine	F. W. Schu	230,348	July 20	990	280	18	177
Brick-machine	G. H. Williams	234,101	Nov. 2	328	91	18	1041
Brick-machine mold	G. Carnell	225,107	Mar. 2	148	43	17	482
Brick machine. Pressed	Z. Vanier	223,617	Jan. 13	496	134	17	99
Brick-machine. Rotary	M. E. Smith and A. M. Glaze	232,769	Sept. 28	1067	292 293	18	723
Brick or building-block and method of laying the same	J. Perchment	225,945	Mar. 30	1162	330	17	697
Brick, pottery, &c. Kiln for burning	H. Escherich	223,585	Jan. 13	460	125	17	93
Brick, pottery, &c. Kiln for burning	H. Escherich	228,331	June 1	198	55	17	1259
Brick, pottery, &c. Kiln for burning	N. B. and E. M. Heafer	225,598	Mar. 16	725	214	17	603
Brick, pottery, &c. Kiln for burning	F. Raffinetti, J. Austin, and E. Gandolfo.	224,352	Feb. 10	439	126 127	17	295
Brick, pottery, &c. Kiln for burning	C. Schlump and R. Honzik	235,907	Dec. 23	1055	291 292	18	1480
Brick press-box	G. H. Thompson	231,508	Aug. 24	1048	294	18	437
Brick-yards. Conveyer for	J. J. Moyers	234,885	Nov. 30	1333	359	18	1237
Bricks and tiles. Machine for cutting off	J. S. Smith	224,616	Feb. 17	753	213	17	357
Bricks. Coloring and hardening	J. Ambuhl	230,729	Aug. 3	152		18	271
Bridge	A. Snyder	227,063	Apr. 27	1110	306	17	960
Bridge and bridge-iron	A. Gottlieb	230,185	July 20	795	225	18	147
Bridge-gate	C. C. Claussen	227,613	May 18	611	175	17	1100
Bridge-gate	A. F. Petersen	227,125	May 4	38	11	17	984
Bridge gate. Draw	T. J. Gray	223,926	Nov. 2	111	30, 31	18	1005
Bridge gate. Draw	A. R. Sherman	226,796	Apr. 20	760	212	17	894
Bridge-gate. Safety	A. Hunt	228,640	June 8	580	154	17	1326
Bridge-guard	P. Walling	227,664	May 18	666	189	17	1108
Bridge. Lifting	E. B. Whitmore	225,775	Mar. 23	948	273 274	17	648
Bridge-links. Device for manufacturing	R. W. Rogers	235,455	Dec. 14	496	143	18	1372
Bridge. Railway	P. Fischer	230,410	July 27	1096	309	18	201
Bridge. Triangular-truss	C. W. Wheeler	231,353	Aug. 17	907	255	18	407
Bridge. Truss	E. Dixon	230,929	Aug. 10	392	113	18	318
Bridge. Truss	R. W. Gorrill	224,677	Feb. 17	820	232 233	17	369
Bridge. Wooden truss	M. Sullivan, J. Kessler, and J. R. Foster.	224,491	Feb. 10	592	171	17	320
Bridges. Barrier for draw	A. R. Sherman	230,203	July 20	817	231	18	151
Bridges. Guard-gate for swing	F. Roehr and E. A. Jeyte	225,535	Mar. 16	658	192	17	590
Bridle	J. W. Aiken	227,012	May 25	1095	311	17	1186
Bridle	R. Arnold	229,792	July 6	324	90	18	55
Bridle	J. A. Beal	223,270	Jan. 6	75	19	17	15
Bridle	H. Hartman	229,405	June 29	1502	414	17	1483
Bridle	D. Magner	233,631	Oct. 26	1053	293	18	937
Bridle	S. A. Nolen	235,643	Dec. 21	724	205	18	1417
Bridle-bit	T. T. Furlong	225,751	Mar. 23	924	267	17	645
Bridle-bit	G. J. Letchworth	231,063	Aug. 10	539	152	18	341
Bridle-bit	J. Stanley	224,851	Feb. 24	1042	297	17	420
Bridle-bit	E. E. Wheeler	233,309	Oct. 12	631	174	18	851
Bridle-bit	C. E. Wallin	235,596	Dec. 14	664	188	18	1400
Bridle-bit attachment	N. J. Blatherwick	224,633	Feb. 17	769	218	17	360
Bridle-blinder	G. A. Gregerson and C. O. Weymouth	227,764	May 18	787	223	17	1127
Bridle-blinder	A. Hosack	234,779	Nov. 23	1196	323	18	1207
Bridle-blinder	G. D. Smith	228,564	June 8	489	131	17	1313
Bridle brow-band	J. F. Day	228,877	June 15	893	244	17	1381
Bridle brow-band	J. F. Sullivan	227,188	May 4	117	34	17	997
Bridle-front	B. A. Wilson	234,445	Nov. 16	772	207	18	1132
Bridle-loop	G. L. Smith	230,831	Aug. 3	275	78	18	292
Bridle nose-piece	R. Arnold	226,954	Apr. 27	967	269	17	938
Brine-agitator	J. M. Laing	235,153	Dec. 7	115	33	18	1300
Brine-evaporating apparatus	V. P. Collins	229,871	July 13	423	118	18	80
Bristle-bunching apparatus	J. J. C. Smith	223,399	Jan. 6	214	57	17	39
Broiler	H. McConnell	232,896	Oct. 5	122	32	18	758
Broiler-furnace	L. B. Parks	223,680	Jan. 20	580	156	17	121
Broiler. Reversible	A. J. Applegate and B. E. Shattuck	224,761	Feb. 24	933	267	17	403
Broiler. Reversible	B. E. Shattuck	234,339	Nov. 9	622	169	18	1098
Bronze. Producing aluminium	J. Webster	233,900	Nov. 2	83		18	1001
Broom	S. P. Fraley	230,541	July 27	1243	352	18	226
Broom	R. D. Gallagher and C. Douglas	232,958	Oct. 5	197	51	18	770
Broom	E. Kirby	229,146	June 22	1200	328	17	1434
Broom	C. Schosson and R. D. Markham	231,500	Aug. 24	1039	291	18	436



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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Broom	J., Jr., and L. Wagner	227,139	May 4	63	18	17	988
Broom and brush holder	J. H. Rosson	230,342	July 20	982	279	18	176
Broom-head	J. R. Spencer	226,124	Mar. 30	1369	386	17	729
Broom holder. Whisk-	G. Kent	234,289	Nov. 9	569	155	18	1090
Brooms and the case employed therein. Packing	J. N. Tym	226,891	Apr. 27	893	248 249	17	927
Brush	T. L. Calkins and F. O. Badger	231,004	Aug. 10	476	135	18	330
Brush	H. Hendrickson	230,277	July 20	910	258	18	164
Brush. Blacking-	E. L. Wood	232,585	Sept. 21	845	235	18	679
Brush for cleaning castings	J. H. Davis	232,600	Sept. 28	875	242	18	691
Brush for greasing griddles	E. Ford	227,235	May 4	177	51	17	1006
Brush. Fountain-	A. J. French	230,120	July 20	720	202	18	136
Brush. Galvanic	B. H. Robb	225,723	Mar. 23	885	258	17	639
Brush. Helical-wire	F. F. Field	232,636	Sept. 28	915	252	18	698
Brush-holder	E. B. Randolph	226,551	Apr. 13	474	133	17	836
Brush holder. Blacking-	H. B. Perham	229,748	July 6	274	77	18	49
Brush-holding cap for mucilage-bottles, &c.	M. W. Carr	228,603	June 8	538	143	17	1320
Brush-machine	C. A. Watkins	232,576	Sept. 21	835	232	18	678
Brush machine. Metallic	R. Bisbee	227,952	May 25	1021	292	17	1175
Brush-making machinery	C. A. Watkins	229,289	June 29	1361	373	17	1465
Brush. Metallic	O. Akerley	230,915	Aug. 10	378	109	18	316
Brush. Metallic hair-	E. A. and W. S. Hill	233,508	Oct. 19	885	245	18	899
Brush. Mucilage	J. B. Davids	226,500	Apr. 13	420	118	17	828
Brush. Paint	E. Wright	235,841	Dec. 21	958	267	18	1457
Brush. Rotary	J. G. Dinkelbiller	223,842	Jan. 27	776	207	17	163
Brush. Shoe-	J. Fenton	230,869	Aug. 10	329	96	18	308
Brush. Tooth-	L. Holz and L. Meyer	229,823	July 13	374	103	18	72
Brush. Upholstery-	E. M. Pine	230,051	July 13	624	174	18	110
Brush-wrapper	C. Hollwede	224,913	Feb. 24	1109	317	17	431
Brushes. Manufacture of rubber backs for wire	A. C. Estabrook	223,844	Jan. 27	778	208	17	164
Brushing animals. Machine for	N. Stow	227,857	May 18	885	251	17	1142
Buckboard	E. Hitt	228,352	June 1	217	61	17	1262
Buckboard	E. Johnson	224,338	Feb. 10	425	121	17	292
Buckboard	E. Joubert and J. H. White	232,920	Jan. 27	875	233	17	179
Bucket bottom. Well-	F. Johnson and F. Eccleston	232,726	Sept. 28	1017	280	18	714
Bucket. Dinner-	W. E. Jones	233,253	Oct. 12	561	155	18	838
Bucket. Dinner-	G. K. Shryock	229,480	June 29	1597	440	17	1497
Bucket. Slop-	G. W. Knapp	229,714	July 6	224	64	18	43
Bucket. Slop-	H. O. Reese	227,577	May 11	563	161	17	1081
Bucket. Soil-	S. W. Jones	224,018	Feb. 3	54	16	17	212
Bucket, tub, &c. Wooden	T. Richards, Jr.	223,541	Jan. 13	409	109	17	84
Buckle	H. G. Bardwell	230,221	July 20	837	236	18	153
Buckle	D. C. Bassett	234,453	Nov. 16	780	210	18	1133
Buckle	R. H. Bishop	235,200	Dec. 7	174	47	18	1310
Buckle	G. G. Bugbee	234,849	Nov. 30	1292	347	18	1230
Buckle	A. L. France	227,755	May 18	777	219	17	1125
Buckle	G. W. Hart	226,914	Apr. 27	920	256	17	931
Buckle	I. L. Landis	225,147	Mar. 2	191	54	17	489
Buckle	I. L. Landis	227,798	May 18	823	233	17	1132
Buckle	C. L. and A. Marschall	234,310	Nov. 9	591	161	18	1093
Buckle	J. F. Molloy	231,603	Aug. 24	1158	324	18	454
Buckle	J. F. Molloy	236,061	Dec. 28	1245	344	18	1511
Buckle	G. H. Palmer	223,240	Jan. 6	38	9	17	9
Buckle	C. W. Polen	235,015	Nov. 30	1491	401	18	1263
Buckle	G. Pratt	235,895	Dec. 28	1041	287	18	1478
Buckle	W. T. Reaser	228,678	June 8	615	166	17	1332
Buckle	J. Rothenbuecher	226,629	Apr. 20	587	164	17	866
Buckle	T. L. Wiswell	235,323	Dec. 7	305	86	18	1332
Buckle attachment for trace-clips	A. Kearful	234,784	Nov. 23	1202	324	18	1209
Buckle. Harness-	W. Collins and C. F. Penniman	228,872	June 15	887	242	17	1380
Buckle. Harness-	B. H. Cross	234,394	Nov. 16	709	191	18	1121
Buckle. Harness-	H. W. Fuller	227,759	May 18	781	220	17	1125
Buckle. Harness-	J. A. Gavitt	231,304	Aug. 17	822	231	18	394
Buckle. Harness-	A. and C. L. Marschall	232,526	Sept. 21	788	218	18	669
Buckle. Harness-	R. D. Whitemore	235,052	Nov. 30	1536	413	18	1271
Buckle-lever	L. A. Sprague	230,156	July 20	764	213	18	142
Buckle-levers. Machine for making	L. A. Sprague	228,136	May 25	1223	348	17	1208
Buckle-levers. Machine for making	L. A. Sprague	231,199	Aug. 17	710	199 200	18	375
Buckle-loop	G. R. Kelsey	227,541	May 11	521	151	17	1075
Buckle. Suspender-	F. Kelley	223,359	Jan. 6	174	46	17	32
Buckle. Suspender-	G. R. Kelsey	224,189	Feb. 3	250	73	17	244
Buckle. Trace-	J. Lally	223,448	Jan. 13	295	78	17	66
Buckle. Trace-	J. Lally	234,991	Nov. 30	1462	393	18	1259
Buckle. Trace-	D. Schoenthaler	228,124	May 25	1210	345	17	1206
Buckle. Trace or tug	H. W. Wilson, A. Gandy, and J. R. Shugert	227,938	May 25	998	286	17	1172
Buckle. Tug-	D. O. Fosgate	228,255	June 1	115	33	17	1245
Buckwheat-hulling apparatus	A. D. Beaty and W. H. Calkins	234,113	Nov. 9	358	99	18	1053
Buffing-roller	J. G. Buzzell	232,333	Sept. 21	555	153	18	631
Bugs from potato-vines. Machine for removing	G. E. Risley	225,870	Mar. 23	1054	301	17	666
Building-block	C. W. Frost	228,052	May 25	1132	322	17	1193
Building-blocks. Pottery-shape for	A. Campbell	225,338	Mar. 9	430	125	17	541
Building. Fire-proof	E. M. Butz	223,275	Jan. 6	80	20	17	16
Building. Fire-proof	J. Gilbert	224,173	Feb. 3	231	67	17	242
Building. Fire-proof	J. J. Schillinger	233,029	Oct. 5	277	76	18	784
Building houses, barns, fences, &c.	J. M. Leeds	225,065	Mar. 2	107	30	17	474
Building materials. Compound for waterproofing and preserving	R. M. Caffall	230,919	Aug. 10	382	.....	18	316
Buildings. Construction of	W. H. Older	236,072	Dec. 28	1254	346	18	1512
Bulk. Machine for handling articles in	F. Imhorst	231,721	Aug. 31	1301	366	18	483
Bulk. Machine for handling articles in	F. Imhorst	233,623	Oct. 26	1044	290 291	18	935
Bull-wheel for oil-wells	W. R. Edelen	234,859	Nov. 30	1301	351	18	1231

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Bull-wheel for oil-wells.....	W. H. F. Raifsnnyder.....	233,373	Oct. 19	732	201	18	874
Bullet.....	J. C. Petmecky.....	233,114	Oct. 12	397	109	18	810
Bullet and shot machine.....	G. W. McCreary.....	227,807	May 18	831	235	17	1134
Bullets. Paper patch or case for.....	H. W. Mason.....	229,327	June 29	1413	387	17	1471
Bulletin-board.....	L. O. Harris.....	224,684	Feb. 17	828	234	17	370
Bulletin-board.....	G. H. Watkinson and C. A. Whelan..	225,446	Mar. 9	544	156	17	560
Bumper.....	W. V. Perry.....	228,385	June 1	254	72	17	1268
Bung.....	J. Brown, Jr.....	225,102	Mar. 2	144	41	17	481
Bung.....	J. H. Stamp.....	228,227	June 1	77	23	17	1240
Bung and faucet.....	F. Engelken.....	233,740	Oct. 26	1175	327	18	958
Bung. Barrel.....	C. W. Baucó.....	229,943	July 13	506	140	18	92
Bung. Barrel.....	B. Chamberlain.....	231,997	Sept. 7	149	39	18	548
Bung. Barrel.....	T. Powers.....	232,903	Oct. 5	130	34	18	759
Bung. Beer.....	A. Fuldner.....	225,515	Mar. 16	638	186	17	586
Bung-bush.....	G. B. Cornell.....	228,731	June 15	710	195	17	1356
Bung-bushing.....	W. G. Pennypacker.....	233,638	Oct. 26	1063	295	18	939
Bung. Faucet.....	J. H. Reynolds and C. H. Shaw.....	235,653	Dec. 21	734	209	18	1419
Bung for beer-kegs. Faucet.....	C. H. Shaw.....	232,653	Sept. 28	936	257	18	701
Bung. Vent.....	O. Zwietsch.....	225,906	Mar. 23	1088	311	17	672
Buoy. Life.....	C. W. Woolsey.....	231,742	Aug. 31	1328	374	18	487
Buoy. Signal.....	E. E. Mann.....	226,238	Apr. 6	106	29	17	764
Bureau.....	C. Erikson.....	230,538	July 27	1245	351	18	226
Burglar-alarm.....	A. F. R. Arndt.....	235,118	Dec. 7	65	20	18	1292
Burglar-alarm.....	G. W. Cooley.....	225,972	Mar. 30	1193	339	17	702
Burglar-alarm.....	E. Glover.....	230,266	July 20	899	255	18	162
Burglar-alarm.....	S. D. Houpt.....	225,606	Mar. 16	738	218	17	605
Burglar-alarm.....	J. Israel.....	224,017	Feb. 3	53	16	17	212
Burglar-alarm.....	I. J. Lister.....	226,236	Apr. 6	105	28	17	764
Burglar-alarm.....	W. T. Terry and E. A. Dyke.....	228,954	June 15	970	264	17	1392
Burglar-alarm.....	K. E. Timmermann.....	228,490	June 8	400	109	17	1299
Burglar-alarm and door-bell. Combined.....	J. Berkey and W. F. Keller.....	224,268	Feb. 10	342	99	17	280
Burglar-alarm. Electric.....	C. H. Carter.....	225,271	Mar. 9	333	98	17	527
Burglar-alarm. Electric.....	W. L. Voelker.....	224,060	Feb. 3	103	30, 31	17	221
Burglar-alarm for safes. Electric.....	E. J. Leland.....	230,788	Aug. 3	217	63	18	282
Burglar-alarm. Percussion.....	W. H. Reiff.....	225,534	Mar. 16	657	192	17	589
Burglar-alarm. Portable.....	W. H. Reiff.....	225,641	Mar. 16	777	228	17	611
Burglar-alarms. Indicator for electric.....	A. Bradford.....	232,591	Sept. 28	864	239	18	689
Burial-case.....	W. Patterson.....	227,123	May 4	36	10	17	984
Burial-case.....	W. M. Reese and M. R. Zell.....	228,679	June 8	616	166	17	1332
Burial-casket.....	J. W. Brasuro.....	232,802	Oct. 5	6	2	18	740
Burial-casket.....	J. A. Meyer.....	227,809	May 18	833	236	17	1134
Burial-casket.....	J. R. Nelson.....	228,104	May 25	1191	339	17	1202
Burial-casket.....	W. H. Powers and J. H. Walker.....	228,836	June 15	847	231	17	1375
Burial-casket.....	J. Taylor.....	223,776	Jan. 20	682	183	17	138
Burner:							
See Crucible - furnace Gasoline-burner.							
burner. Hydrocarbon-burner.							
Electric - light Lamp-burner.							
burner. Lamp and lantern burner.							
Gas - lighting Lantern-burner.							
burner. Oil-burner.							
Gas or vapor Stove-burner.							
burner. Vapor-burner.							
Gas - regulating burner.							
Burnishing-machine.....	H. P. Nichols.....	230,430	July 27	1123	315	18	205
Burnishing-machine.....	W. O. Way.....	235,921	Dec. 28	1075	298	18	1484
Burnishing-machines. Feed-motion for.....	W. W. White.....	231,876	Aug. 31	1495	419	18	513
Burring and ginning cylinder.....	J. K. Proctor.....	231,357	Aug. 17	877	247	18	402
Bushing. Anti-frictional.....	H. Loud.....	224,453	Feb. 10	554	159	17	314
Butter-cooler and water-holder. Combined.....	P. Dorlon.....	235,857	Dec. 28	997	276	18	1471
Butter, &c. Cover and cooler for.....	W. E. Barrows.....	224,126	Feb. 3	179	25	17	233
Butter cutter and marker.....	F. C. Ballsmith.....	230,392	July 27	1078	303	18	198
Butter. Device for preserving.....	L. W. Hawley.....	227,432	May 11	403	117	17	1054
Butter-package.....	G. W. Bradley.....	233,195	Oct. 12	491	135	18	826
Butter-package.....	J. Carpenter.....	223,478	Jan. 13	335	89	17	72
Butter-package.....	S. M. Kohr.....	226,524	Apr. 13	447	125	17	832
Butter. Preservation of.....	T. F. Wilkins.....	226,467	Apr. 13	371	.....	17	820
Butter-press.....	N. S. Long.....	232,356	Sept. 21	586	162	18	636
Butter. Process of and apparatus for making.....	W. S. Hatheway.....	234,867	Nov. 30	1310	353	18	1233
Butter. Purifying rancid.....	J. C. Morris.....	232,051	Sept. 7	210	.....	18	559
Butter-trier.....	A. O. Cheney.....	233,202	Oct. 12	499	137	18	828
Butter washer, cooler, and worker.....	H. J. Lyman.....	223,934	Jan. 27	895	237	17	182
Butter-worker.....	O. S. Cornish and D. W. Curtis.....	234,459	Nov. 16	769	212	18	1135
Butter-worker.....	J. Sattison.....	223,654	Jan. 20	547	148	17	116
Button.....	J. B. Allen.....	231,948	Sept. 7	84	22	18	538
Button.....	W. W. Covell.....	231,541	Aug. 24	1085	304	18	442
Button.....	C. L. Hazard.....	231,572	Aug. 24	1122	314	18	448
Button.....	A. D. Jeffrey.....	225,288	Mar. 9	373	109	17	531
Button.....	H. W. Knight.....	232,190	Sept. 14	375	104	18	594
Button.....	L. Leszynsky.....	232,044	Sept. 7	202	55	18	558
Button.....	A. Milliken.....	228,096	May 25	1185	336	17	1201
Button.....	A. Milliken.....	234,684	Nov. 23	1087	292	18	1190
Button.....	D. S. Porter.....	230,814	Aug. 3	248	71	18	287
Button.....	H. H. Schmitt.....	227,306	May 4	246	71	17	1018
Button.....	A. J. Shipley.....	230,352	July 20	994	282	18	178
Button.....	I. Smith.....	234,929	Nov. 30	1384	372	18	1245
Button.....	T. L. Snyder.....	229,196	June 22	1248	343	17	1441
Button.....	G. C. Thomas.....	230,361	July 20	1004	285	18	180
Button.....	H. Wexel.....	225,959	Mar. 30	1180	335	17	700
Button.....	E. S. Wheeler.....	233,587	Oct. 19	979	271	18	915
Button.....	C. H. Wood.....	226,815	Apr. 20	783	218	17	898
Button and button-fastener.....	B. L. D'Aubigne.....	226,722	Apr. 20	684	190	17	882

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Button and button-fastener	E. Wright	232,587	Sept. 21	846	236	18	620
Button and button-fastening	D. L. Morgan	230,959	Aug. 10	424	122	18	323
Button and button-fastening	H. Pennio	224,303	Feb. 10	384	108	17	286
Button and necktie-fastener. Collar	H. Hickman	226,071	Mar. 30	1308	368	17	720
Button and stud	F. P. Barney	229,356	June 29	1451	399	17	1476
Button and stud	S. G. Easterbrooks	229,108	June 22	1159	317	17	1428
Button and stud	J. Kennedy	235,634	Dec. 21	714	203	18	1415
Button and stud	P. Laroussie	229,428	June 29	1526	421	17	1487
Button and stud	N. F. Mathewson	224,098	Feb. 3	150	42	17	228
Button and stud	H. McDougall	235,445	Dec. 14	480	135	18	1369
Button and stud	H. McDougall	235,446	Dec. 14	481	136	18	1369
Button and stud	C. H. Mumford	231,234	Aug. 17	754	211	18	382
Button and stud	N. Nelson	234,604	Nov. 16	976	260	18	1166
Button and stud	J. Newman	227,700	May 18	711	201	17	1115
Button and stud	A. Nicoud	229,169	June 22	1221	335	17	1437
Button and stud. Collar	G. Clautier	234,961	Nov. 30	1428	384	18	1232
Button and stud. Cuff	C. F. Littlejohn	232,194	Sept. 14	379	105	18	594
Button and stud. Separable	W. P. Dolloff	230,115	July 20	715	200	18	135
Button and stud. Sleeve	O. T. Smith	227,184	May 4	109	32	17	996
Button attachment	F. J. Rosenberg	229,557	July 6	61	17	18	18
Button-backs. Machine for making	F. C. Cannon	230,236	July 20	852	241	18	156
Button. Collar	G. E. Adams	232,385	Sept. 21	624	172	18	642
Button. Collar	T. B. Boyd	232,108	Sept. 14	281	78	18	578
Button. Composition	A. H. Noble	234,322	Nov. 9	604	164	18	1095
Button. Composition	A. H. Noble	235,277	Dec. 7	259	72	18	1324
Button. Cuff	H. A. Fisher	226,736	Apr. 20	699	194	17	884
Button. Detachable	I. M. Capron and F. H. Sadler	230,402	July 27	1087	306	18	200
Button. Detachable	J. P. Carpenter	224,144	Feb. 3	194	56	17	236
Button. Detachable	D. S. Cooke	227,735	May 18	755	213	17	1121
Button-fastener	D. Bainbridge	228,298	June 1	167	47	17	1253
Button-fastener	B. F. Bee	229,853	July 13	409	113	18	77
Button-fastener	J. B. Stewart	230,504	July 27	1209	340	18	219
Button. Flexible center	N. H. Bruce	227,479	May 11	456	131	17	1064
Button for cuffs, &c.	H. E. Moore	225,853	Mar. 23	1031	297	17	663
Button-hole cutter	A. Schaffer	226,358	Apr. 6	234	69	17	788
Button-hole-cutting machine	S. D. Tripp	235,918	Dec. 28	1073	297	18	1483
Button-hole for cuffs, &c.	C. H. Shaw	234,620	Nov. 16	993	264	18	1169
Button-holes, eyelets, &c. Stitching	J. A. House	225,381	Mar. 9	474	138	17	549
Button or stud	D. S. Cooke and E. H. Spencer, Jr.	235,853	Dec. 28	994	275	18	1470
Button or stud	E. Dobell	229,240	June 29	1298	358	17	1456
Button. Separable	C. B. Carpenter	227,485	May 11	462	133	17	1065
Button. Separable	J. P. Carpenter	224,143	Feb. 3	193	56	17	235
Button. Separable	H. A. Carter	227,730	May 18	750	211	17	1121
Button. Separable	F. W. Clarko	234,754	Nov. 23	1163	314	18	1202
Button. Separable	J. H. Crowell	228,984	June 22	1026	279	17	1409
Button. Separable	E. S. Dodgo	229,388	June 29	1484	408	17	1481
Button. Separable	W. P. Dolloff	226,988	Apr. 27	1010	280	17	945
Button. Separable	W. P. Dolloff	234,910	Nov. 30	1367	367	18	1242
Button. Separable	J. H. Hodges	230,017	July 13	590	163	18	105
Button. Separable	N. P. Maker	231,965	Sept. 7	115	29	18	542
Button. Separable	C. E. Mason	233,423	Oct. 19	795	219	18	884
Button. Separable	W. H. Shattuck	224,849	Feb. 24	1040	296	17	420
Button. Separable	E. Shrier	228,563	June 8	489	131	17	1313
Button. Separable	G. K. Webster	225,896	Mar. 23	1077	308	17	671
Button. Separable	F. E. Williams	234,933	Nov. 30	1390	374	18	1246
Button-setting instrument	G. W. Prentice	226,549	Apr. 13	472	133	17	836
Button. Sleeve	I. L. Garside	230,473	July 27	1177	332	18	214
Button. Sleeve	L. Morse	226,769	Apr. 20	733	204	17	890
Button. Sleeve and cuff	H. McDougall	228,370	June 1	237	67	17	1265
Button. Sleeve and cuff	L. H. Thomas	233,299	Oct. 12	621	171	18	849
Button, stud, &c.	I. N. Capron	224,386	Feb. 10	479	137	17	302
Button-turning machine	T. L. Calkins and J. W. Cook	234,241	Nov. 9	508	140	18	1080
Buttons. Dio for forming	C. R. Wickes	226,140	Mar. 30	1386	391	17	732
Buttons, &c., from fibrous material and powdered hoof. Manufacturing	W. F. Niles	224,036	Feb. 3	72	.....	17	216
Buttons from plastic material. Apparatus for the manufacture of	P. L. Sylvester	230,083	July 13	657	183	18	116
Buttons, &c., from plastic materials. Manufacture of	W. L. Palmer	225,638	Mar. 16	774	.....	17	611
Buttons from plastic material. Manufacture of	P. L. Sylvester	229,490	June 29	1607	.....	17	1498
Buttons from plastic material. Manufacture of	P. L. Sylvester	229,491	June 29	1607	.....	17	1498
Buttons from plastic material. Manufacture of	P. L. Sylvester	229,492	June 29	1608	.....	17	1498
Buttons from plastic material. Manufacture of	P. L. Sylvester	229,493	June 29	1608	.....	17	1498
Buttons from plastic material. Manufacture of	P. L. Sylvester	229,494	June 29	1609	.....	17	1498
Buttons from plastic material. Manufacture of	P. L. Sylvester	230,082	July 13	656	183	18	116
Buttons from plastic material. Manufacture of	P. L. Sylvester	231,372	Aug. 17	892	252	18	405
Buttons from plastic material. Manufacture of	P. L. Sylvester	232,088	Sept. 7	253	70	18	565
Buttons from plastic material. Manufacture of	P. L. Sylvester	232,564	Sept. 21	825	.....	18	676
Buttons from plastic material. Manufacture of	P. L. Sylvester	232,565	Sept. 21	826	.....	18	676
Buttons from plastic material. Manufacture of	P. L. Sylvester	232,566	Sept. 21	826	.....	18	676
Buttons from plastic material. Manufacture of	P. L. Sylvester	232,567	Sept. 21	827	229	18	676
Buttons from plastic material. Manufacture of	C. R. Wickes	232,582	Sept. 21	840	{ 233 } { 234 }	18	679
Buttons. Machine for making	W. W. Wade	228,233	June 1	85	26, 27	17	1241
Buttons. Machine for manufacturing	G. L. Aston and A. Hames	234,938	Nov. 30	1395	375	18	1247
Buttons, &c. Machine for molding	W. F. Niles	234,800	Nov. 23	1225	330	18	1212
Buttons. Machine for the manufacture of	G. L. Aston and A. Hames	228,017	May 25	1098	312	17	1186
Buttons, &c. Machine for the manufacture of	J. F. Bapteroses	226,696	Apr. 20	657	183	17	877
Buttons, &c. Manufacture of	J. Bliss and F. O. Badger	225,556	Mar. 16	684	.....	17	595
Buttons, &c. Manufacture of	H. O. Koschwitz	234,989	Nov. 30	1460	393	18	1258
Buttons. Manufacture of horn	C. H. Dederer	224,399	Feb. 10	492	141	17	304
Buttons or studs. Manufacture of	H. B. Morris	233,869	Nov. 2	50	14	18	995
Buttons. Producing designs on	C. L. Woodbridge	234,106	Nov. 2	335	.....	18	1042
Buttons to cards. Attaching	S. L. Otis	232,057	Sept. 7	217	59	18	560

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Buttons to sale-cards. Machine for attaching.....	F. W. Clough.....	224,583	Feb. 17	711	{ 202 203 204	{ 17	350
Buttoner. Glove.....	J. W. Partridge.....	230,196	July 20	807	228	18	149
Cabinet. Exhibiting.....	J. F. Martin.....	225,846	Mar. 25	1023	{ 294 295	{ 17	661
Cabinet-maker's clamp.....	J. L. König.....	226,617	Apr. 20	569	158	17	864
Cable. Pipe-inclosed underground.....	D. Brooks.....	234,748	Nov. 23	1157	312	18	1201
Cake-machine.....	W. S. Owens.....	230,431	July 27	1124	316	18	205
Cake-stirrer.....	E. J. McClellan.....	228,914	June 15	931	253	17	1386
Calcium. Apparatus for the decomposition of chloride of.....	E. Solvay.....	235,820	Dec. 21	928	259	18	1452
Calculator.....	B. L. Davis.....	228,448	June 8	339	93, 94	17	1291
Calculator.....	J. S. Duret.....	233,840	Nov. 2	15	4	18	989
Calculator.....	H. Fitch.....	232,482	Sept. 21	739	205	18	661
Calculator for postage-stamps.....	G. W. Terry.....	226,607	Apr. 20	772	215	17	896
Calculator. Interest.....	W. J. Gurd.....	229,118	June 22	1170	320	17	1429
Calendar.....	A. R. Baker.....	229,578	July 6	84	22	18	21
Calendar.....	J. R. King.....	231,055	Aug. 10	529	149	18	339
Calendar. Clock.....	J. F. Henderson.....	227,250	May 4	191	55	17	1009
Calendars, &c. Back and brace for.....	G. Bergen.....	230,170	July 20	777	217	18	144
Calendering paper. Method and apparatus for.....	M. Newton.....	229,551	July 6	54	15	18	16
Calipers and centering device.....	M. W. Kahle.....	230,421	July 27	1114	313	18	204
Calipers and dividers.....	I. Kinney.....	230,876	Aug. 10	337	97	18	310
Calipers and dividers.....	W. H. Warren.....	228,958	June 15	974	265	17	1393
Calipers and scriber. Combined.....	M. W. Kahle.....	230,420	July 27	1112	312	18	203
Calk sharpener. Shoe.....	J. Borland.....	228,975	June 22	1015	276	17	1407
Caloric engine.....	J. Hock.....	231,488	Aug. 24	1024	288	18	434
Caloric engine.....	J. Jenkins.....	228,643	June 8	583	{ 154 155	{ 17	1326
Cam-slide.....	T. Briggs.....	233,398	Oct. 19	762	209	18	879
Cams for machinery. Construction of.....	J. Brady.....	231,145	Aug. 17	637	181	18	364
Camera: See Photographic camera.							
Camera attachment.....	E. J. Molera and J. C. Cebrian.....	230,319	July 20	951	270	18	170
Camp-chair. Folding.....	J. Turner.....	231,868	Aug. 31	1487	417	18	512
Camphor. Apparatus for refining.....	W. V. McKenzie.....	223,747	Jan. 20	748	174	17	132
Can: See Air-tight can. Milk-can. Baking-powder can. Oil-can. Cooking-can. Oiling-can. Creaming-can. Paint-can. Dripping-can. Refrigerating-can. Fruit and oyster Sheet-metal can. packing can. Shipping-can. Incased can. Squirt-can. Lubricating-can. Tilting can. Metallic can.							
Can.....	D. Bennett.....	228,167	June 1	8	3	17	1228
Can.....	E. P. Fox.....	234,465	Nov. 16	796	214	18	1136
Can.....	E. Norton.....	235,278	Dec. 7	259	72	18	1324
Can.....	E. Norton.....	235,279	Dec. 7	260	73	18	1324
Can.....	I. Porter.....	227,052	Apr. 27	1088	301	17	957
Can.....	I. Porter.....	229,749	July 6	275	77	18	49
Can.....	W. R. Van Vliet.....	226,945	Apr. 27	958	266	17	937
Can and bottle opener.....	I. N. Arment.....	234,646	Nov. 23	1038	279	18	1183
Can-capping machine.....	J. Adams and E. Renneburg.....	227,468	May 11	444	128	17	1061
Can-cover. Sheet-metal.....	E. Norton.....	235,280	Dec. 7	261	73	18	1324
Can-fastening.....	J. Hall.....	228,343	June 1	210	59	17	1261
Can-filler.....	J. West and R. D. Hume.....	233,449	Oct. 19	824	227	18	889
Can-filling apparatus.....	G. H. Perkins.....	227,825	May 18	848	240	17	1136
Can-filling machine.....	L. Cutting.....	232,339	Sept. 21	561	155	18	632
Can forming and soldering machine.....	C. A. Bangs and G. H. Pierce.....	224,763	Feb. 24	935	{ 267 268	{ 17	403
Can-making machine.....	W. D. Brooks.....	234,950	Nov. 30	1414	{ 380 381	{ 18	1250
Can-nozzle.....	G. Browne.....	224,577	Feb. 17	705	201	17	350
Can-opener.....	W. E. Brock.....	228,595	June 8	530	141	17	1319
Can-opener.....	W. E. Brock.....	234,527	Nov. 16	865	230	18	1147
Can-opener.....	G. A. Snow and F. L. Coe.....	233,813	Oct. 26	1258	351	18	972
Can-opener.....	C. M. Williams.....	224,977	Feb. 21	1172	336	17	441
Can-spout.....	T. C. Massey.....	227,697	May 18	708	200	17	1115
Can-top.....	R. Gillespie.....	229,531	July 6	30	8	18	13
Can-top.....	E. T. Mason and F. A. Bergman.....	230,885	Aug. 10	346	100	18	311
Cans and other vessels. Nozzle for.....	L. F. Betts.....	231,144	Aug. 17	636	180	18	364
Cans. Apparatus for exhausting air from.....	T. G. F. Dolby.....	230,179	July 20	788	221	18	146
Cans. Apparatus for handling.....	H. Miller.....	235,002	Nov. 30	1477	397	18	1261
Cans, &c. Apparatus for sealing.....	E. Johnson.....	228,999	June 22	1045	284	17	1411
Cans. Gaging and side-seaming.....	R. Gornall.....	234,271	Nov. 9	547	{ 149 150	{ 18	1086
Cans. Machine for placing heads in.....	P. Dillon and J. Cleary.....	233,079	Oct. 12	349	96	18	802
Cans. Mechanism for placing and soldering heads in.....	G. H. Pierce.....	235,700	Dec. 21	791	{ 223 224	{ 18	1423
Cans. Sealing fruit.....	G. T. Hunsaker.....	235,879	Dec. 28	1022	283	18	1475
Cans. Swinging.....	F. C. Wilson.....	229,293	June 29	1365	374	17	1465
Canuer and weighing-scales. Combined fruit.....	W. C. Thornton.....	229,204	June 22	1257	345	17	1442
Cannon. Breech-loading.....	P. P. Brannon and T. B. Bunting.....	224,637	Feb. 17	774	219	17	360
Canal-boat. Steam.....	C. G. Kellogg.....	229,000	June 22	1045	285	17	1411
Canal-boats. Construction of.....	J. O. Smith.....	232,081	Sept. 7	547	67	18	564
Canal-lock.....	T. Milette.....	227,563	May 11	244	157	17	1079
Canals, &c. Lock and lock-gate for.....	J. Ponchet and G. Sautercau.....	227,831	May 18	857	{ 243 244	{ 17	1138
Canceled device. Pyro.....	A. S. Gear.....	227,423	May 11	388	114	17	1052

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Canceling device. Pyro.....	A. S. Gear.....	227,424	May 11	390	{ 114 115 }	17	1052
Candle-holder.....	J. W. Spear.....	227,660	May 18	663	188	17	1108
Candlestick.....	W. Selkirk.....	226,556	Apr. 13	480	135	17	837
Candy. Device for packing.....	W. B. Howe.....	230,778	Aug. 3	206	60	18	280
Candy. Manufacture of.....	C. G. Brommer.....	229,667	July 6	178		18	35
Candy whistles. Manufacture of.....	G. M. Mills.....	229,163	June 22	1216	333	17	1437
Cane and umbrella handle.....	M. Sternheimer.....	232,085	Sept. 7	251	69	18	565
Cane and whip handle.....	M. A. Gilman.....	232,179	Sept. 14	365	101	18	592
Cane cutter. Sugar.....	P. Seitz.....	224,733	Feb. 17	874	249	17	378
Cane handle. Telescopic.....	J. B. Chandley and W. Wilson.....	223,706	Jan. 20	606	162	17	125
Cane-mill.....	W. S. Reeder.....	226,352	Apr. 6	230	67	17	788
Cane-shaving machines. Attachment for.....	G. S. Colburn.....	224,515	Feb. 17	629	182	17	337
Cane-top and match-safe. Combined.....	L. Hellman.....	233,676	Oct. 26	1105	307	18	946
Canister.....	C. A. Fredericks.....	225,818	Mar. 23	999	287	17	657
Canister.....	P. Lehmann.....	235,789	Dec. 21	891	249	18	1445
Canister.....	E. Norton.....	227,046	Apr. 27	1082	299	17	956
Canoe. Portable folding.....	W. Armstrong.....	234,164	Nov. 9	413	112	18	1062
Cant-dog.....	T. F. Cassidy.....	235,992	Dec. 28	1162	323	18	1498
Cant-hook.....	M. Bellanger.....	232,627	Sept. 28	906	249	18	696
Cant-hook.....	H. C. A., and J. H. Peavey.....	224,605	Feb. 17	739	210	17	355
Cant-hook ferrule.....	A. Sanford.....	228,943	June 15	961	261	17	1391
Caoutchouc, &c. Manufacture of goods from.....	H. Gerner.....	226,058	Mar. 30	1296		17	718
Caoutchouc. Treating waste vulcanized.....	L. Hoyer.....	226,070	Mar. 30	1307		17	719
Cap.....	P. Goldmann.....	230,770	Aug. 3	199	58	18	279
Cap and scarf. Convertible traveling.....	A. Weiler.....	230,845	Aug. 3	289	83	18	295
Cap. Heat-protecting.....	G. L. Witsil.....	228,796	June 15	801	218	17	1368
Capstan.....	F. Allen and F. A. Grater.....	231,949	Sept. 7	85	22	18	538
Capsule machine. Gelatine.....	V. E. Manger.....	232,835	Oct. 5	51	15	18	747
Capsules. Making.....	C. Cheswright.....	233,980	Nov. 2	187	48	18	1017
Car attachment for elevated railways.....	C. E. Powers.....	233,016	Oct. 5	260	72	18	781
Car attachment. Street.....	F. L. Tripp.....	235,180	Dec. 7	142	40	18	1306
Car-brake.....	C. Ammarrell.....	228,584	June 8	511	137	17	1316
Car-brake.....	G. Bressler.....	234,525	Nov. 16	863	230	18	1147
Car-brake.....	R. A. Burge and E. A. Quinby.....	226,275	Apr. 6	142	40	17	771
Car-brake.....	G. Collins and J. Longton.....	227,218	May 4	155	46	17	1003
Car-brake.....	J. Crollard.....	235,749	Dec. 21	849	237	18	1437
Car-brake.....	D. R. Dwyer.....	230,181	July 20	791	223	18	146
Car-brake.....	S. Emery.....	231,291	Aug. 17	811	227	18	392
Car-brake.....	A. F. Gue and G. F. Field.....	233,850	Nov. 2	30	8	18	991
Car-brake.....	W. M. Henderson.....	232,030	Sept. 7	187	51	18	555
Car-brake.....	E. I. Hockaday.....	235,530	Dec. 14	585	167	18	1387
Car-brake.....	L. S. Hoyt.....	225,382	Mar. 9	475	138	17	549
Car-brake.....	A. Johnson.....	235,152	Dec. 7	112	32	18	1300
Car-brake.....	A. K. Kline.....	234,293	Nov. 9	572	156	18	1090
Car-brake.....	A. K. Kline.....	234,294	Nov. 9	574	156	18	1090
Car-brake.....	S. S. Leach.....	236,048	Dec. 28	1228	339	18	1508
Car-brake.....	H. M. Lee.....	227,368	May 11	331	97	17	1043
Car-brake.....	G. Marshall.....	235,267	Dec. 7	244	68	18	1322
Car-brake.....	R. H. Norris.....	231,081	Aug. 10	558	{ 157 158 }	18	345
Car-brake.....	G. D. Paul.....	229,747	July 6	272	76, 77	18	48
Car-brake.....	C. V. Rote.....	234,493	Nov. 16	227	221	18	1141
Car-brake.....	G. A. Small.....	234,622	Nov. 16	994	265	18	1169
Car-brake.....	G. Smith.....	235,912	Dec. 28	1065	295	18	1482
Car-brake.....	W. P. Smith.....	233,036	Oct. 5	287	80	18	786
Car-brake.....	C. H. and W. E. Sparks.....	224,362	Feb. 10	451	{ 129 130 }	17	297
Car-brake.....	C. F. Wohlfarth and C. W. Wakefield.....	229,510	June 29	1625	447	17	1500
Car brake and starter.....	C. J. Bell.....	234,648	Nov. 23	1040	280	18	1183
Car brake and starter.....	J. L. Cole.....	223,885	Jan. 27	832	222	17	172
Car brake and starter.....	A. E. Hoadley.....	229,041	June 22	1085	296	17	1417
Car brake and starter.....	C. A. Howe.....	227,255	May 4	195	57	17	1010
Car brake and starter.....	C. W. Richardson, E. and J. E. Dawson.....	226,881	Apr. 27	883	246	17	925
Car brake and starter.....	J. H. H. Taylor.....	230,506	July 27	1210	341	18	220
Car-brake. Atmospheric.....	I. P. Wendell.....	233,957	Nov. 2	161	41	18	1012
Car-brake. Automatic.....	W. L. Card and J. Noble.....	223,317	Jan. 6	130	33	17	24
Car-brake. Automatic.....	W. L. Card and D. S. Randolph.....	231,535	Aug. 24	1078	303	18	441
Car-brake. Automatic.....	H. Skinner.....	225,881	Mar. 23	1064	304	17	668
Car-brake. Automatic.....	B. L. Stowe.....	231,115	Aug. 10	595	169	18	351
Car-brake. Automatic.....	B. L. Stowe.....	231,116	Aug. 10	598	170	18	351
Car-brake. Automatic.....	S. P. Tallman.....	235,916	Dec. 28	1070	296	18	1483
Car-brake. Automatic.....	T. M. Workman and J. H. James.....	231,136	Aug. 10	620	175	18	355
Car-brake coupling.....	W. N. Haring.....	231,564	Aug. 24	1112	312	18	446
Car-brake. Electric.....	P. V. Conover.....	224,880	Feb. 24	1072	307	17	425
Car-brake. Electro-magnetic.....	J. Cochran.....	231,276	Aug. 17	796	223	18	389
Car-brake mechanism.....	F. W. Chaffee.....	231,271	Aug. 17	790	221	18	388
Car brake. Railway.....	C. Gentil.....	228,752	June 15	736	203	17	1360
Car brake. Railway.....	W. Gill.....	232,812	Oct. 5	18	5	18	741
Car brake. Railway.....	J. R. Jones.....	225,611	Mar. 16	745	220	17	606
Car brake. Railway.....	G. B. Stock.....	224,966	Feb. 24	1157	331	17	439
Car. Cattle.....	W. C. Alston.....	225,911	Mar. 30	1106	316	17	689
Car. Cattle.....	J. T. Howard.....	230,940	Aug. 10	404	117	18	320
Car. Cattle.....	I. M. Lincoln.....	233,630	Oct. 26	1053	293	18	937
Car center-plate. Railway.....	O. Bradley, Jr.....	225,332	Mar. 9	425	124	17	541
Car. Construction.....	G. F. Harris.....	229,702	July 6	218	59	18	40
Car. Convertible grain.....	C. C. Coffin.....	225,918	Mar. 30	1116	319	17	691
Car-coupling.....	C. F. Archenbronn.....	230,458	July 27	1161	327	18	211
Car-coupling.....	F. G. Arter and J. C. Blocher.....	226,955	Apr. 27	968	269	17	938
Car-coupling.....	J. D. Aycock.....	225,040	Mar. 2	74	21	17	469
Car-coupling.....	D. S. Bailey.....	232,588	Sept. 28	859	239	18	689
Car-coupling.....	C. J. R. Ballard.....	228,855	June 15	868	237	17	1378
Car-coupling.....	E. T. Barlow.....	226,824	Apr. 27	809	226	17	913



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Car-coupling.....	C. J. Bell.....	229,660	July 6	167	46	18	34
Car-coupling.....	J. N. Best.....	233,971	Nov. 2	176	45	18	1015
Car-coupling.....	J. N. Blair.....	235,728	Dec. 21	825	231	18	1433
Car-coupling.....	A. T. Bleyley.....	231,988	Sept. 7	141	37	18	546
Car-coupling.....	P. W. Bradburn.....	234,652	Nov. 23	1045	281	18	1184
Car-coupling.....	T. Breen.....	228,863	June 15	876	239	17	1378
Car-coupling.....	J. C. Brooks.....	229,950	July 13	515	142	18	93
Car-coupling.....	J. H. Bull.....	228,599	June 8	533	142	17	1319
Car-coupling.....	J. Candy.....	232,594	Sept. 28	869	240	18	690
Car-coupling.....	E. J. Clark.....	223,794	Jan. 20	700	189	17	141
Car-coupling.....	J. Coart.....	232,687	Sept. 28	976	269	18	708
Car-coupling.....	J. T. Cook and J. S. Leas.....	224,881	Feb. 24	1073	{ 307 308 }	{ 17 18 }	425
Car-coupling.....	E. Cravens.....	232,464	Sept. 21	719	200	18	657
Car-coupling.....	A. Cron.....	233,330	Oct. 19	679	187	18	865
Car-coupling.....	G. W. Curtis.....	234,175	Nov. 9	430	116	18	1066
Car-coupling.....	W. P. Cutter.....	228,042	May 25	1118	318	17	1190
Car-coupling.....	C. Deamude and G. W. Cannon.....	229,679	July 6	191	53	18	36
Car-coupling.....	J. A. Dickinson.....	231,216	Aug. 17	734	206	18	379
Car-coupling.....	O. H. Drinkwater.....	225,578	Mar. 16	705	208	17	599
Car-coupling.....	O. H. Drinkwater.....	226,727	Apr. 20	688	192	17	882
Car-coupling.....	J. P. Easley.....	232,809	Oct. 5	15	4	18	741
Car-coupling.....	W. I. Ely.....	234,550	Nov. 16	896	240	18	1153
Car-coupling.....	R. B. Eubank, Jr.....	229,241	June 29	1299	358	17	1457
Car-coupling.....	W. L. Everit.....	232,953	Oct. 5	189	50	18	769
Car-coupling.....	P. Farwell.....	226,293	Apr. 6	169	49	17	776
Car-coupling.....	W. R. Firebaugh.....	231,782	Aug. 31	1376	388	18	495
Car-coupling.....	J. S. Fisher.....	225,583	Mar. 16	710	209	17	600
Car-coupling.....	W. L. Fisher.....	230,763	Aug. 3	191	55	18	277
Car-coupling.....	D. Frank.....	226,386	Apr. 13	282	83, 84	17	807
Car-coupling.....	J. G. Goshon.....	224,898	Feb. 24	1093	313	17	428
Car-coupling.....	J. D. Gray.....	226,742	Apr. 20	706	196	17	885
Car-coupling.....	J. F. Gross.....	229,400	June 29	1497	412	17	1483
Car-coupling.....	A. Guyer.....	225,981	Mar. 30	1204	341	17	703
Car-coupling.....	S. Haltom.....	233,092	Oct. 12	370	102	18	805
Car-coupling.....	W. N. Haring.....	227,770	May 18	792	224	17	1127
Car-coupling.....	W. Harkins.....	224,777	Feb. 24	955	272	17	406
Car-coupling.....	W. Harkins.....	226,170	Apr. 6	26	7	17	751
Car-coupling.....	W. Harkins.....	227,246	May 4	186	54	17	1008
Car-coupling.....	E. Hathaway and T. H. Myers.....	229,408	June 29	1505	415	17	1484
Car-coupling.....	J. T. Haunson.....	226,314	Apr. 6	190	56	17	781
Car-coupling.....	J. Heffner.....	225,599	Mar. 16	727	214	17	603
Car-coupling.....	H. Heller.....	232,348	Sept. 21	577	159	18	634
Car-coupling.....	J. H. Henley.....	225,129	Mar. 2	175	49	17	486
Car-coupling.....	H. E. Henwood.....	223,733	Jan. 20	633	170	17	130
Car-coupling.....	E. Hickman.....	232,126	Sept. 14	297	84	18	581
Car-coupling.....	F. Z. Hickox.....	223,509	Jan. 13	372	99	17	78
Car-coupling.....	A. G. Hobenstein.....	229,411	June 29	1508	416	17	1484
Car-coupling.....	T. J. Hoover.....	233,514	Oct. 19	892	247	18	900
Car-coupling.....	J. H. Horton.....	231,719	Ang. 31	1299	365	18	483
Car-coupling.....	C. R. Howard.....	230,015	July 13	588	163	18	105
Car-coupling.....	H. B. Howard.....	231,044	Aug. 10	519	146	18	338
Car-coupling.....	L. J. Johnson.....	227,538	May 11	519	149	17	1074
Car-coupling.....	D. Keethler.....	234,111	Nov. 2	339	93	18	1043
Car-coupling.....	R. F. Krohn.....	225,840	Mar. 23	1018	293	17	660
Car-coupling.....	D. Kunkel, Sr.....	234,990	Nov. 30	1461	393	18	1258
Car-coupling.....	F. A. Lewis.....	224,004	Feb. 3	147	41	17	227
Car-coupling.....	A. Loehner.....	232,195	Sept. 14	379	105	18	594
Car-coupling.....	M. W. McCann.....	230,796	Aug. 3	229	66	18	284
Car-coupling.....	R. McDougall and C. H. Shaw.....	236,054	Dec. 23	1234	340	18	1509
Car-coupling.....	J. H. Meredith.....	224,599	Feb. 17	734	208	17	354
Car-coupling.....	A. B. Miller.....	233,000	Oct. 5	242	67	18	778
Car-coupling.....	E. H. Moorman.....	228,469	June 8	363	99	17	1294
Car-coupling.....	F. A. Morand and J. Edwards.....	228,212	June 1	57	18	17	1236
Car-coupling.....	M. E. Morningstar and J. W. Roberts.....	230,038	July 13	611	170	18	108
Car-coupling.....	L. Mullenhoff.....	230,804	Aug. 3	237	68	18	286
Car-coupling.....	H. B. Myer and H. Skinner.....	225,410	Mar. 9	508	147	17	554
Car-coupling.....	E. Neff and A. Thalman.....	223,378	June 1	248	70	17	1367
Car-coupling.....	S. F. Newland.....	227,819	May 18	841	238	17	1135
Car-coupling.....	S. B. Nickum.....	228,834	June 15	845	231	17	1374
Car-coupling.....	F. M. Oliver.....	226,186	Apr. 6	46	12	17	754
Car-coupling.....	A. Osterhont.....	230,044	July 13	616	171	18	109
Car-coupling.....	J. J. Padden.....	232,411	Sept. 21	653	180	18	647
Car-coupling.....	J. W. Page.....	234,685	Nov. 23	1088	292	18	1190
Car-coupling.....	A. S. Peck.....	224,721	Feb. 17	860	245	17	376
Car-coupling.....	W. C. Perry.....	231,845	Aug. 31	1457	409	18	507
Car-coupling.....	E. S. Plimpton.....	230,493	July 27	1193	337	18	218
Car-coupling.....	R. E. Pogue.....	232,061	Sept. 7	219	60	18	560
Car-coupling.....	J. E. Purdy.....	223,244	Jan. 6	41	10	17	10
Car-coupling.....	G. W. Putman.....	228,675	June 8	612	164	17	1331
Car-coupling.....	J. H. Quackenbush.....	235,648	Dec. 21	729	208	18	1418
Car-coupling.....	J. T. Rice.....	230,058	July 13	632	176	18	112
Car-coupling.....	W. H. Roundy.....	234,727	Nov. 23	1132	305	18	1197
Car-coupling.....	W. S. Sampson.....	229,916	July 13	474	131	18	87
Car-coupling.....	W. S. Sampson.....	233,028	Oct. 5	275	76	18	784
Car-coupling.....	W. Scott.....	235,027	Nov. 30	1506	405	18	1266
Car-coupling.....	E. Shafer.....	223,766	Jan. 20	669	180	17	136
Car-coupling.....	C. H. Shippee.....	223,127	May 25	1214	345	17	1206
Car-coupling.....	C. H. Shippee.....	229,763	July 6	294	82	18	51
Car-coupling.....	L. C. Slonecker.....	234,082	Nov. 2	310	86	18	1038
Car-coupling.....	J. F. Stanley.....	228,411	June 1	279	79	17	1272
Car-coupling.....	T. A. Trudelle and E. Maheux.....	235,045	Nov. 30	1527	411	18	1269
Car-coupling.....	W. Tucker.....	228,956	June 15	972	265	17	1392
Car-coupling.....	W. Tucker.....	233,302	Oct. 12	624	172	18	849

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Car-coupling.....	W. H. Ward.....	230,370	July 20	1012	{ 286 287 }	18	181
Car-coupling.....	C. G. Weidling.....	223,686	Jan. 20	586	157	17	122
Car-coupling.....	L. B. Weisenburgh.....	231,127	Aug. 10	609	172	18	353
Car-coupling.....	P. H. Wendel.....	226,009	Mar. 30	1239	350	17	709
Car-coupling.....	H. N. Wickes.....	224,754	Feb. 17	895	256	17	382
Car-coupling.....	P. B. Williams.....	230,379	July 20	1022	289	18	183
Car-coupling.....	G. H. Wilson.....	224,262	Feb. 3	324	93	17	257
Car-coupling.....	J. T. Wilson.....	229,849	July 13	405	112	18	77
Car-coupling.....	J. N. Winn.....	223,426	Jan. 6	244	65	17	44
Car-coupling.....	J. N. Winn.....	225,675	Mar. 16	814	238	17	618
Car-coupling.....	H. C. Wofford.....	229,511	June 29	1625	448	17	1500
Car-coupling.....	G. Wood.....	227,942	May 25	1002	288	17	1172
Car-coupling instrument.....	G. Searl.....	226,250	Apr. 6	116	32	17	766
Car-coupling link.....	W. S. Sampson.....	229,917	July 13	475	131	18	88
Car coupling-link. Railway.....	A. Middleton.....	229,731	July 6	254	71	18	46
Car-coupling tool.....	W. G. Hurd.....	227,690	May 18	701	193	17	1113
Car-coupling tool.....	G. Searl.....	228,400	June 1	268	75	17	1270
Car. Cylinder.....	J. W. Shryock.....	230,899	Aug. 10	364	105	18	313
Car. Cylinder.....	T. T. Prosser.....	231,089	Aug. 10	568	160	18	346
Car-door.....	J. Sweeney.....	232,153	Sept. 14	324	92	18	585
Car-door.....	D. F. Van Liew.....	232,662	Sept. 28	946	260	18	703
Car-door bolt.....	J. B. Calkins.....	234,240	Nov. 9	508	140	18	1020
Car-door bolt.....	A. W. Zimmerman.....	228,241	June 1	98	29	17	1242
Car-door fastener.....	R. H. Briggs and J. H. Dougherty.....	234,526	Nov. 16	864	230	18	1147
Car-door fastening.....	W. H. Buser and B. L. Shaw.....	223,705	Jan. 20	605	162	17	125
Car-door fastening. Freight.....	H. A. Towne.....	233,644	Oct. 26	1070	293	18	940
Car-door fastening. Grain.....	O. H. Drinkwater.....	226,728	Apr. 20	689	192	17	883
Car door. Freight.....	L. H. Webster.....	232,578	Sept. 21	837	232	18	678
Car door. Freight.....	J. H. Wickes.....	227,338	May 4	281	82	17	1024
Car door. Grain.....	T. Hibbert.....	230,012	July 13	584	162	18	104
Car door. Grain.....	J. Kiley.....	227,265	May 4	205	60	17	1011
Car door. Grain.....	W. J. Latta and S. W. Neall.....	229,716	July 6	236	65	18	43
Car door. Grain.....	W. A. McClintock.....	229,440	June 29	1539	424	17	1489
Car door. Grain.....	E. Robinson.....	230,574	July 27	1282	361	18	232
Car door. Grain.....	J. H. Wickes.....	224,314	Feb. 10	396	112	17	288
Car-door hanger.....	E. E. Pratt.....	227,127	May 4	40	12	17	985
Car-door lock.....	W. Bradley.....	232,448	Sept. 21	705	194	18	655
Car-door-operating mechanism.....	L. Prince.....	230,570	July 27	1278	360	18	231
Car door. Railway.....	E. Prescott.....	229,052	June 22	1098	298	17	1419
Car-door sill. Grain.....	D. F. Van Liew.....	225,441	Mar. 9	539	155	17	559
Car-doors. Operating.....	W. W. Riley.....	229,755	July 6	282	79	18	50
Car draw-bar. Freight.....	C. Barrett.....	224,985	Mar. 2	5	2	17	457
Car draw-bar. Railway.....	D. Hoyt.....	225,132	Mar. 2	177	50	17	486
Car draw-bar. Railway.....	W. H. Stackhouse.....	232,152	Sept. 14	324	92	18	585
Car. Dumping.....	M. Burns.....	230,918	Aug. 10	381	110	18	316
Car. Dumping.....	J. J. Hill.....	227,434	May 11	404	118	17	1054
Car. Dumping.....	J. Jones.....	223,922	Jan. 27	876	{ 233 234 }	17	179
Car. Dumping.....	J. F. Mathews.....	232,528	Sept. 21	792	219	18	670
Car. Dumping.....	W. H. Paige.....	233,542	Oct. 19	928	256	18	907
Car. Dumping.....	M. Van Wormer.....	236,121	Dec. 28	1321	363	18	1523
Car dust-guard.....	F. M. Stevens.....	231,628	Aug. 24	1182	331	18	458
Car for common roads.....	T. T. Prosser.....	224,727	Feb. 17	868	248	17	377
Car-frame.....	G. W. Cushing.....	223,437	Jan. 13	286	76	17	64
Car. Freight.....	C. Barrett.....	224,984	Mar. 2	4	1	17	457
Car. Freight.....	L. Myers.....	225,197	Mar. 2	244	68, 69	17	498
Car. Freight.....	T. T. Prosser.....	224,724	Feb. 17	862	{ 246 247 }	17	377
Car. Freight.....	T. T. Prosser.....	224,726	Feb. 17	866	247	17	377
Car. Freight.....	T. T. Prosser.....	224,728	Feb. 17	869	248	17	377
Car. Freight.....	T. T. Prosser.....	224,729	Feb. 17	871	248	17	378
Car. Grain.....	W. S. Hanson.....	228,814	June 15	821	224	17	1371
Car. Hand.....	T. G. Glover, Jr.....	226,304	Apr. 6	181	52	17	779
Car-heater.....	S. F. Kellogg.....	226,862	Apr. 27	854	237	17	921
Car-heater.....	M. Lippert.....	224,194	Feb. 3	255	74	17	245
Car-heater.....	M. C. Root.....	235,899	Dec. 28	1045	289	18	1478
Car-heater.....	I. A. Salmon.....	227,997	May 25	1076	{ 306 307 }	17	1184
Car heater and ventilator. Hot-air.....	H. A. Gouge.....	234,606	Nov. 23	1064	{ 286 287 }	18	1187
Car heater, cooler, and ventilator. Railway.....	N. N. Horton.....	227,977	May 25	1053	299	17	1180
Car heater. Street.....	G. C. Bovey.....	227,345	May 11	307	89	17	1039
Car-lifting device.....	J. M. Bebout.....	233,395	Oct. 19	760	209	18	879
Car. Merchandising.....	G. S. Jacques.....	229,135	June 22	1190	325	17	1432
Car motor. Street.....	W. A. Gilday.....	228,057	May 25	1138	324	17	1194
Car motor. Street.....	J. Lockhart.....	231,183	Aug. 17	691	194	18	372
Car-mover.....	G. H. Bronson.....	228,726	June 15	706	194	17	1355
Car-mover.....	F. B. Galloway.....	235,759	Dec. 21	860	240	18	1439
Car-mover. Lever-power.....	C. W. Van Anker and J. S. Gum.....	226,688	Apr. 20	650	180	17	876
Car. Oil-tank.....	H. F. Snyder.....	223,867	Jan. 27	812	218	17	169
Car-platform.....	R. A. Cowell.....	231,407	Aug. 24	937	265	18	420
Car-platform gate.....	J. S. Savage.....	234,072	Nov. 2	298	82	18	1035
Car propeller. Street.....	H. E. Depp.....	227,417	May 11	382	112	17	1051
Car propeller. Street.....	W. F. Rothenberg.....	226,002	Mar. 30	1231	348	17	708
Car. Railway.....	C. Barrett.....	225,913	Mar. 30	1110	317	17	690
Car. Railway.....	A. K. Lissberger and S. D. Samuels.....	223,291	Jan. 6	102	25	17	19
Car. Railway.....	G. L. Waitt.....	234,507	Nov. 16	840	225	18	1143
Car. Railway freight.....	E. B. Ward.....	229,778	July 6	309	86	18	53
Car-replacer.....	W. V. Flynn.....	227,422	May 11	387	114	17	1052
Car-replacer.....	J. P. T. Lang.....	223,290	Jan. 6	101	24	17	19
Car-replacer.....	J. Parker.....	235,286	Dec. 7	267	75	18	1325
Car-replacer.....	A. Reed.....	232,300	Sept. 14	506	141	18	617
Car-replacer.....	S. D. Reeve.....	230,716	Aug. 3	140	41	18	269

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Car-roof.....	J. D. Felthousen.....	231,220	Aug. 17	737	207	18	379
Car-roof.....	I. H. Randall.....	234,063	Nov. 2	289	80	18	1034
Car-roof.....	J. C. Wands.....	224,496	Feb. 10	597	172	17	321
Car-roof.....	A. P. Winslow.....	233,057	Oct. 5	314	87	18	790
Car-roofing.....	C. A. Smith.....	225,172	Mar. 2	215	60	17	493
Car. Safety railway.....	J. Dénéchaud.....	235,135	Dec. 7	87	27	18	1296
Car-seat.....	C. Beggs.....	229,944	July 13	507	140	18	92
Car-seats. Adjustable foot-rest for.....	F. S. Pratt.....	226,194	Apr. 6	55	14	17	755
Car seats. Folding rack for sleeping.....	C. E. Lucas.....	229,897	July 13	453	125	18	84
Car-signal. Revolving.....	E. H. Brower.....	223,313	Jan. 6	127	32	17	23
Car. Sleeping.....	T. Clarke.....	232,686	Sept. 28	973	267 268 269	18	707
Car. Sleeping.....	F. B. Whipple.....	234,899	Nov. 30	1352	363 364	18	1240
Car-spring.....	E. T. Buss.....	234,850	Nov. 30	1293	347	18	1230
Car-spring.....	E. Cliff.....	226,597	Apr. 20	545	153	17	860
Car-spring.....	E. Cliff.....	231,150	Aug. 17	645	182	18	365
Car-spring.....	A. B. Davis.....	231,018	Aug. 10	493	139	18	333
Car-spring.....	A. B. Davis.....	231,019	Aug. 10	494	139	18	333
Car-spring.....	A. Middleton.....	229,164	June 22	1217	333	17	1437
Car-stake.....	J. W. Marden.....	234,681	Nov. 23	1085	291	18	1190
Car-starter.....	B. G. Fitzhugh.....	234,121	Nov. 9	367	101	18	1054
Car-starter.....	J. F. Goodridge and A. Pope.....	234,026	Nov. 2	250	68	18	1027
Car-starter.....	J. Hill.....	223,347	Jan. 6	162	42	17	29
Car-starter.....	J. Ladner.....	234,590	Nov. 16	964	256	18	1164
Car-starter.....	T. J. Langston.....	232,043	Sept. 7	201	54, 55	18	558
Car-starter.....	H. M. Powel.....	234,330	Nov. 9	613	167	18	1097
Car-starter.....	A. Stewart.....	225,433	Mar. 9	531	152	17	558
Car-starter.....	A. R. Witmer.....	235,324	Dec. 7	307	86	18	1332
Car-step.....	B. F. Shelabarger.....	227,310	May 4	251	73	17	1019
Car-step. Folding.....	J. W. Radebaugh.....	235,291	Dec. 7	273	76	18	1326
Car. Stock.....	F. W. Becker.....	229,659	July 6	167	46	18	34
Car. Stock.....	S. Bray.....	223,876	Jan. 27	824	219	17	170
Car. Stock.....	J. V. Brown and B. R. Neal.....	234,953	Nov. 30	1418	382	18	1250
Car. Stock.....	D. N. Brownell.....	235,337	Dec. 14	350	96	18	1347
Car. Stock.....	T. Clarke.....	225,507	Mar. 16	625	183	17	584
Car. Stock.....	J. L. Copp.....	224,652	Feb. 17	790	223	17	363
Car. Stock.....	W. P. Craig.....	233,329	Oct. 19	677	186	18	865
Car. Stock.....	S. R. Earls.....	232,952	Oct. 5	188	50	18	769
Car. Stock.....	E. G. Frisbie.....	227,754	May 18	776	219	17	1125
Car. Stock.....	J. Froebich.....	232,256	Sept. 14	458	126	18	608
Car. Stock.....	S. S. Haight.....	232,262	Sept. 14	464	128 129	18	609
Car. Stock.....	W. S. Hunter.....	231,425	Aug. 24	959	270	18	423
Car. Stock.....	J. Huy.....	226,073	Mar. 30	1310	369	17	720
Car. Stock.....	C. G. James.....	234,036	Nov. 2	261	71	18	1029
Car. Stock.....	J. Kay.....	233,936	Nov. 2	125	34	18	1008
Car. Stock.....	L. Leber.....	232,732	Sept. 28	1022	251	18	715
Car. Stock.....	W. Martin.....	226,333	Apr. 6	210	61	17	784
Car. Stock.....	S. H. McGibeny.....	224,707	Feb. 17	846	241	17	374
Car. Stock.....	S. H. McGibeny.....	232,611	Sept. 28	888	245	18	693
Car. Stock.....	J. Montgomery.....	233,790	Oct. 26	1229	341 342	18	968
Car. Stock.....	J. Montgomery.....	235,608	Dec. 14	679	193 194	18	1402
Car. Stock.....	W. Neracher.....	234,420	Nov. 16	741	200	18	1127
Car. Stock.....	G. F. Patterson.....	225,466	Mar. 16	602	175	17	580
Car. Stock.....	G. F. Patterson.....	233,369	Oct. 19	728	199	18	873
Car. Stock.....	F. Rieber.....	228,933	June 15	950	258	17	1359
Car. Stock.....	C. A. Smith.....	226,936	Apr. 27	947	263	17	935
Car. Stock.....	L. D. Smith.....	232,770	Sept. 28	1070	293	18	723
Car. Stock.....	H. Sullings.....	230,835	Aug. 3	279	80	18	293
Car. Stock.....	S. P. Tallman.....	226,131	Mar. 30	1377	388	17	731
Car. Stock.....	C. H. and W. G. Webster.....	228,499	June 8	408	112	17	1301
Car. Stock.....	J. Wood.....	226,897	Apr. 27	900	250	17	928
Car. Stock.....	L. Woodruff.....	233,129	Oct. 12	417	114 115	18	813
Car. Street.....	J. Andrew.....	226,822	Apr. 27	806	225	17	913
Car. Street.....	W. N. Hawley.....	230,774	Aug. 3	203	59	18	279
Car. Street.....	S. J. Tneker and R. F. Williams.....	235,046	Nov. 30	1528	412	18	1270
Car. Tram.....	J. Stephenson.....	235,311	Dec. 7	290	82	18	1329
Car, &c., ventilator.....	J. R. Hayden and W. H. Thiell.....	230,011	July 13	583	162	18	104
Car-ventilator.....	C. W. Thomas.....	224,248	Feb. 3	311	90	17	254
Car-wheel.....	J. Absterdam.....	227,467	May 11	444	127	17	1061
Car-wheel.....	J. Findlay.....	233,222	Oct. 12	523	145	18	831
Car-wheel.....	J. F. Kelly.....	226,453	Apr. 13	356	102	17	818
Car-wheel.....	J. McCaskey and D. D. Douds.....	232,288	Sept. 14	494	137	18	614
Car-wheel.....	T. T. Prosser.....	231,095	Aug. 10	576	163	18	348
Car-wheel.....	T. T. Prosser.....	231,096	Aug. 10	576	163	18	348
Car-wheel.....	J. Rigby.....	232,849	Oct. 5	65	19	18	749
Car-wheel.....	J. Rigby.....	233,701	Oct. 26	1132	316	18	950
Car-wheel.....	H. C. Smith.....	231,503	Aug. 24	1042	292	18	436
Car-wheel.....	E. L. Taylor.....	234,502	Nov. 16	836	223	18	1142
Car-wheel.....	J. H. Watt.....	234,098	Nov. 2	325	90	18	1040
Car-wheel.....	A. Wilbur.....	234,699	Nov. 23	1102	296	18	1192
Car-wheel.....	A. Wilbur.....	235,835	Dec. 21	947	261	18	1455
Car-wheel.....	J. A. Woodbury.....	228,430	Jan. 1	296	84	17	1274
Car-wheel chill.....	J. N. Barr.....	225,549	Mar. 16	674	197	17	592
Car-wheel chill.....	W. Wilmington.....	228,428	June 1	294	83	17	1274
Car-wheel chill.....	W. Wilmington.....	231,130	Aug. 10	612	173	18	353
Car-wheel guard. Railway.....	S. Brisac.....	223,473	Jan. 13	329	88	17	71
Car-window.....	W. C. Hicks.....	224,778	Feb. 24	956	272	17	406
Car-window cinder-fender.....	G. W. Smith.....	233,883	Nov. 2	68	18	18	998

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Cars. Apparatus for delivering railway-ties from....	J. Pusey.....	225,236	Mar. 9	301	86	17	521
Cars. Apparatus for moving tram.....	J. R. Purcell.....	231,097	Aug. 10	577	163	18	348
Cars. Bell-cord guide for railway.....	S. L. Finley.....	228,253	June 1	112	164	17	1244
Cars by electricity. Propelling.....	S. D. Field.....	229,991	July 13	559	155	18	101
Cars. Device for unloading.....	G. P. Merrill.....	234,883	Nov. 30	1331	358	18	1237
Cars. Die for making draw-heads for.....	H. C. Szink.....	232,215	Sept. 14	407	113	18	599
Cars, &c. Grain-spout for loading.....	J. Coleman.....	232,597	Sept. 28	872	241	18	691
Cars. Heating and ventilating.....	A. K. Mansfield.....	235,265	Dec. 7	243	67	18	1322
Cars. Illumination of railway.....	R. Bocklen.....	224,576	Feb. 17	703	200	17	349
Cars. Implement for moving.....	J. M. Brown.....	225,336	Mar. 9	428	125	17	541
Cars. Leveling attachment for earth.....	J. Andrews.....	232,224	Sept. 14	416	115	18	601
Cars. Lever for moving.....	O. B. Blakeslee.....	229,363	June 29	1458	401	17	1477
Cars. Means for coupling.....	W. N. Haring.....	231,565	Aug. 24	1113	312	18	447
Cars. Mechanism for making ladder-irons and hand-holds for freight.....	R. H. Briggs and J. H. Dougherty.....	223,877	Jan. 27	825	219	17	171
Cars. Mechanism for propelling.....	A. Sanford.....	232,652	Sept. 28	935	257	18	701
Cars on inclined planes. Operating.....	J. Delaney.....	231,020	Aug. 10	495	139	18	333
Cars on tramways or railways. Operating.....	L. Parker.....	224,347	Feb. 10	435	125	17	294
Cars. Propelling.....	O. H. Jadwin.....	223,592	Jan. 13	469	127	17	94
Cars. Sand-distributor for street.....	S. S. Wood.....	225,904	Mar. 23	1086	310	17	672
Cars. Shield for railway.....	S. C. Mason and J. L. Hanson.....	234,416	Nov. 10	738	199	18	1126
Cars. Sound-deadening attachment for railway.....	E. F. French and M. C. Jeffers.....	234,265	Nov. 9	541	147	18	1085
Cars. Spring-frame for freight.....	J. J. Shirley.....	235,462	Dec. 14	505	145	18	1373
Cars to moving trains. Device for attaching.....	A. B. Chapin.....	225,272	Mar. 9	334	98, 99	17	527
Cars upon railways. Running.....	J. R. Cox.....	228,176	June 1	18	6	17	1230
Cars. Ventilating.....	R. P. Morgan, Jr.....	223,375	Jan. 6	189	50	17	35
Cars. Ventilating and refrigerating.....	J. B. Elliot.....	223,640	Jan. 20	534	143	17	114
Cars, &c. Ventilating railway.....	J. S. Lloyd.....	229,720	July 6	241	66	18	44
Carbon bisulphide and sulphuric acid from pyrites and apparatus therefor. Manufacture of.....	E. C. E. and L. L. Labois.....	233,680	Oct. 26	1107	308	18	946
Carbon conductors. Manufacturing.....	H. S. Maxim.....	230,309	July 20	942	268	18	169
Carbonates and bicarbonates. Manufacture of.....	A. Stearns.....	224,240	Feb. 3	302	87	17	253
Carbureter.....	H. C. De Witt.....	223,490	Jan. 13	350	93	17	75
Carbureter.....	H. C. De Witt.....	223,582	Jan. 13	457	124	17	92
Carbureter.....	B. Radkey.....	230,656	Aug. 3	73	20	18	258
Carbureter.....	I. A. Hyams.....	225,931	Mar. 30	1136	323	17	693
Carbureter.....	C. W. Soule.....	227,853	May 18	880	250	17	1142
Carbureter.....	G. Westinghouse, Jr.....	229,346	June 29	1439	396	17	1475
Carbureter.....	M. S. Wright.....	226,581	Apr. 13	501	141	17	841
Carbureter. Gas.....	H. J. Ferguson.....	226,820	Apr. 20	787	219	17	599
Carbureter. Gas.....	J. M. Palmer.....	226,875	Apr. 27	877	244	17	924
Carbureters. Gas governor and regulator for.....	A. F. Chace.....	230,744	Aug. 3	170	50	18	274
Carbureting air or gases for illuminating purposes. Apparatus for.....	W. West.....	231,635	Aug. 24	1189	333	18	459
Carbureting apparatus.....	G. H. Burrows.....	233,978	Nov. 2	184	47	18	1017
Carbureting apparatus.....	G. H. Burrows.....	234,955	Nov. 30	1420	382	18	1251
Carbureting apparatus.....	C. L. Heywood and R. Bocklen.....	224,592	Feb. 17	727	206	17	353
Carbureting apparatus.....	W. J. Ormsby.....	234,055	Nov. 2	280	77	18	1032
Carbureting apparatus.....	J. Rnthven.....	234,108	Nov. 2	337	93	18	1043
Carbureting apparatus.....	D. P. Sanders.....	223,763	Jan. 20	666	179	17	135
Carbureting apparatus.....	G. Smyers.....	226,122	Mar. 30	1367	385	17	729
Carbureting gas and air.....	W. M. Jackson.....	228,357	June 1	221	17	1263	
Card and collar board. Machine for the manufacture of.....	C. M. Gage.....	234,266	Nov. 9	541	148	18	1085
Card-board. Machine for cutting and scoring.....	C. Brombacher.....	223,475	Jan. 13	331	89	17	71
Card cutting or stripping machine.....	J. Whitelaw.....	234,829	Nov. 23	1262	339	18	1219
Card. Direction.....	R. P. Beatty.....	226,825	Apr. 27	810	226	17	914
Card. Geographical game.....	W. G. Read.....	229,914	July 13	472	130	18	87
Card-holder.....	F. G. Hunter.....	230,016	July 13	590	163	18	105
Card-holder.....	J. F. Emerson.....	227,507	May 11	484	139	17	1068
Card or leather board or like material. Inlaying sheets of.....	A. Hilpert.....	230,776	Aug. 3	205	59	18	280
Card-screen.....	W. J. English.....	233,221	Oct. 12	522	145	18	831
Card-teeth. Apparatus for making wire.....	G. and E. Ashworth.....	226,262	Apr. 6	130	37	17	769
Card-teeth. Apparatus for tempering wire for.....	W. F. Bateman.....	228,301	June 1	170	47	17	1254
Cards, &c. Making colored-edged.....	O. B. Hastings.....	232,965	Oct. 5	204	55	18	771
Carding-engines and drawing-frames. Coiling mechanism for.....	J. Wolstencroft.....	224,979	Feb. 24	1174	336	17	442
Carding-engines. Apparatus for turning cylinders of.....	B. S. Roy.....	229,844	July 13	402	110	18	76
Carding-engines. Machine for grinding the top-flats of.....	B. S. Roy.....	230,065	July 13	640	178	18	113
Carding-machine.....	F. M. Cole.....	233,206	Oct. 12	503	138	18	828
Carding-machine.....	A. W. Dean.....	229,808	July 13	353	99	18	68
Carding-machine.....	G. E. Taft.....	233,576	Oct. 19	969	267	18	913
Carding-machine. Device for conveying, doubling, and folding the lap of a.....	R. and T. B. Wilde.....	226,379	Apr. 6	255	75	17	793
Carding-machine feeding device.....	J. H. Brackett.....	227,672	May 18	677	193	17	1110
Carding-machines. Device for operating the doffer-combs of.....	J. Barker.....	227,202	May 4	133	39	17	999
Carding-machines. Fleece-dividing attachment for condensers for.....	J. S. Boletto.....	227,671	May 18	676	192	17	1110
Carpenter's gage.....	W. Goodwin.....	230,127	July 20	729	204	18	137
Carpenter's gage-tool.....	J. Russell.....	230,440	July 27	1133	318	18	207
Carpet and oil-cloth stretcher.....	L. Zimmer.....	232,099	Sept. 7	263	72	18	567
Carpet-cleaner.....	T. Ferry.....	231,550	Aug. 24	1096	307	18	444
Carpet-cleaners. Stretcher for.....	W. Bixby and A. Brooks.....	235,848	Dec. 28	989	274	18	1470
Carpet-cleaning machine.....	W. McArthur.....	234,049	Nov. 2	274	75	18	1031

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Carpet-exhibitor	A. Peterson	231,680	Aug. 31	1254	{ 352 353 }	18	476
Carpet-fastener	W. Bray	228,306	June 1	174	48	17	1255
Carpet-lining	G. J. Bicknell	228,163	June 1	9	3	17	1228
Carpet-lining	E. K. Cooley	232,336	Sept. 21	557	154	18	631
Carpet-lining	R. A. Denison	228,734	June 15	713	196	17	1356
Carpet-lining	G. S. Page	225,718	Mar. 23	878		17	638
Carpet-lining	G. H. Smith and J. H. Beale	230,205	July 20	820	232	18	151
Carpet-lining fabric	D. Hunt, Jr.	229,535	July 6	33	9	18	13
Carpet-lining, Manufacture of	J. R. Harrington	232,962	Oct. 5	200	53	18	770
Carpet-linings, &c. Fabric for	W. S. Hunt	227,109	May 4	21	7	17	982
Carpet-linings, Machine for making	H. Bogert	226,272	Apr. 6	139	39	17	771
Carpet-pads, Machinery for making	H. M. Small	224,053	Feb. 3	95	28	17	219
Carpet-pads, Manufacture of	H. M. Small	231,733	Aug. 31	1319	371	18	486
Carpet-stretcher	J. A. Dice	225,273	Mar. 9	338	99	17	528
Carpet-stretcher	J. B. Eddy	224,887	Feb. 24	1080	309	17	426
Carpet-stretcher	G. D. Hartsuck	227,524	May 11	503	144	17	1072
Carpet-stretcher	E. Heintz	231,666	Aug. 31	1238	348	18	474
Carpet-stretcher	W. O. Hogue	231,167	Aug. 17	670	189	18	369
Carpet-stretcher	S. D. Houpt	227,784	May 18	808	229	17	1130
Carpet-stretcher	J. M. Miller	228,663	June 8	601	161	17	1329
Carpet-stretcher	E. C. Smith and L. S. Winters	228,689	June 8	625	169	17	1333
Carpet-stretcher and tack-driver	G. Terrill	226,634	Apr. 20	593	165	17	867
Carpet-stretching apparatus	J. M. Jay	226,917	Apr. 27	926	258	17	932
Carpet-sweeper	M. R. Bissell	233,137	Oct. 12	425	117	18	814
Carpet-sweeper	M. R. Bissell	233,596	Oct. 26	1015	282	18	931
Carpet-sweeper	E. K. Breckenridge	224,069	Feb. 3	116	34	17	222
Carpet-sweeper	W. J. Drew	229,389	June 29	1485	408	17	1481
Carpet-sweeper	W. J. Drow	232,698	Sept. 28	987	271	18	710
Carpet-sweeper	G. W. Gates	234,021	Nov. 2	244	66	18	1026
Carpet-sweeper	G. W. Gates and B. F. Potter	226,512	Apr. 13	433	121	17	830
Carpet-sweeper	H. A. Gore	226,847	Apr. 27	837	232	17	918
Carpet-sweeper	B. W. Johnson	228,358	June 1	222	63	17	1263
Carpet-sweeper	T. S. Page	229,174	June 22	1226	337	17	1438
Carpet-sweeper	A. D. Plumb	233,371	Oct. 19	730	200	18	873
Carpet-sweeper	H. S. Wing	224,316	Feb. 10	398	{ 112 113 }	17	289
Carpet-sweeper	H. S. Wing	227,941	May 25	1001	287	17	1172
Carpet-tacker	S. S. Grannis	223,905	Jan. 27	855	227	17	176
Carpet-tacker	S. S. Grannis	229,397	June 29	1492	411	17	1482
Carriage	T. H. Brown	230,399	July 27	1085	305	18	199
Carriage	T. J. Wright	227,340	May 4	284	83	17	1024
Carriage and cradle, Combined baby	A. J. Marsh	229,623	July 6	129	35, 36	18	28
Carriage-aprons, &c. Fastener for	J. Ives	231,048	Aug. 10	524	147	18	338
Carriage, Baby	C. M. Hubbard	233,761	Oct. 26	1199	333	18	962
Carriage-body corner-brace	J. R. Anderson and J. P. Hastings	230,852	Aug. 10	309	90	18	305
Carriage-body loops, Device for making	W. Pearce	235,806	Dec. 21	913	{ 254 255 }	18	1449
Carriage-bolts, Die for making	I. Newton	225,532	Mar. 16	655	191	17	589
Carriage-boot-flap hook	C. F. Littlejohn	234,301	Nov. 9	582	158	18	1092
Carriage-bow	E. M. Driscoll	232,601	Sept. 28	875	242	18	691
Carriage-bow	F. D. Parry	233,873	Nov. 2	54	15	18	996
Carriage-bow	B. J. Warden	230,372	July 20	1015	287	18	181
Carriage-bows, Spring-support for	D. C. Wilgus and C. D. Johnson	225,738	Mar. 23	900	262	17	641
Carriage-canopy support	H. C. Seely	234,208	Nov. 9	474	129	18	1074
Carriage, Child's	C. E. Fosburgh	234,016	Nov. 2	239	65	18	1025
Carriage, Child's	D. J. Greenleaf	233,503	Oct. 19	880	243	18	898
Carriage, Child's	G. W. Mason	233,362	Oct. 19	719	{ 196 197 }	18	872
Carriage, Child's	C. Mattern	226,767	Apr. 20	730	204	17	889
Carriage, Child's	J. C. Richardson	235,171	Dec. 7	133	38	18	1304
Carriage, Child's	N. B. Welsh	226,138	Mar. 30	1384	390	17	732
Carriage, Child's	J. B. Wightman	224,976	Feb. 24	1171	335	17	441
Carriage-clips, Die for swaging	S. M. Hove	228,636	June 8	577	153	17	1325
Carriage-clips, Roll for forming	J. C. Richardson	226,109	Mar. 30	1353	381	17	726
Carriage-curtain fastener	G. L. Crandal	227,219	May 4	156	46	17	1003
Carriage-curtain fastener	H. P. Hunt	228,536	June 8	448	122	17	1307
Carriage-curtain fastening	C. Fockler	227,752	May 18	774	219	17	1124
Carriage-curtain fastening	J. B. Kendall	227,262	May 4	202	59	17	1011
Carriage-curtain fastening	W. Kimblo	233,255	Oct. 12	563	156	18	839
Carriage-curtain fastening	F. A. Neider	231,345	Aug. 17	868	244	18	401
Carriage-curtain fastening	O. M. Tuttle	230,364	July 20	1007	285	18	160
Carriage-curtain loop	F. A. Neider	234,888	Nov. 30	1337	360	18	1238
Carriage-curtain-roller support	O. S. Osborn	231,237	Aug. 17	756	211	18	382
Carriage-dash frame	H. Davies	235,935	Dec. 28	1095	303	18	1486
Carriage-dash frame	G. Monteith	230,325	July 20	962	273	18	173
Carriage-dash frame	G. M. Peters	228,474	June 8	369	101	17	1295
Carriage-dash frame	B. J. Warden	225,669	Mar. 16	808	{ 236 237 }	17	617
Carriage-dashes, Fastening attachment for	B. J. Warden	228,575	June 8	502	134	17	1314
Carriage, Extension	H. C. Seely	223,545	Jan. 13	412	110	17	85
Carriage, Folding-top	E. P. Hincks	235,528	Dec. 14	583	166	18	1386
Carriage-jack	M. C. Burr	226,971	Apr. 27	956	274	17	942
Carriage-jump-seat	J. Finnegan	226,053	Mar. 30	1290	364	17	717
Carriage-lifter	C. F. Haynes	230,275	July 20	908	258	18	164
Carriage-prop-block washer	A. S. Parker	224,603	Feb. 17	738	209	17	355
Carriage-seat	W. S. Durie	236,008	Dec. 28	1181	327	18	1501
Carriage-seat iron for shifting-rails	G. E. Spare	228,483	June 8	389	108	17	1298
Carriage, Side-bar	J. W. Magoun	231,339	Aug. 17	861	242	18	400
Carriage-spring	H. W. Avery	225,093	Mar. 2	136	39	17	480
Carriage-spring	W. H. Brace	225,334	Mar. 9	426	124	17	541
Carriage-spring	S. W. Cately	233,727	Oct. 26	1162	323	18	955
Carriage-spring	O. C. Coggins	225,970	Mar. 30	1191	338	17	702



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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Carriage-spring	J. S. Corban	231,278	Aug. 17	798	223	18	389
Carriage-spring	J. R. Locke	224,597	Feb. 17	733	208	17	354
Carriage-spring	J. S. Mares	234,137	Nov. 9	382	105	18	1057
Carriage spring and reach	J. A. McConnell	229,898	July 13	454	126	18	84
Carriage-spring gear	A. Warnock	235,920	Dec. 28	1075	297	18	1483
Carriage. Spring-propelled	J. A. Moore	223,373	Jan. 6	187	49	17	34
Carriage-top	O. C. Coggins	224,879	Feb. 24	1072	307	17	425
Carriage-top	O. C. Coggins	228,444	June 8	334	92	17	1230
Carriage-top	D. Conboy	226,389	Apr. 13	274	81	17	806
Carriage-top	J. Deline	236,002	Dec. 28	1172	325	18	1500
Carriage-top	C. Fockler	227,751	May 18	773	218	17	1124
Carriage-top	J. McKee	230,312	July 20	945	268	18	170
Carriage-top	F. A. Norcross	235,892	Dec. 28	1038	287	18	1477
Carriage-top	C. L. Pritchard	232,299	Sept. 14	505	141	18	616
Carriage-top. Baby-	C. C. Egerton	230,930	Aug. 10	333	114	18	318
Carriage-top brace	C. Fockler	223,900	Jan. 27	845	226	17	174
Carriage-top. Child's	J. N. Hazelip	236,027	Dec. 28	1203	332	18	1504
Carriage-top joint	N. L. Fox	229,312	June 29	1393	381	17	1469
Carriage-top rest	S. D. Goff	231,792	Aug. 31	1391	392	18	497
Carriage-top rest	G. Miles	228,211	June 1	56	18	17	1236
Carriage-top support	P. B. Collins	233,729	Oct. 26	1164	323	18	955
Carriage. Two-wheeled	J. Jenkins	234,285	Nov. 9	564	153	18	1088
Carriage-wheel	A. M. Williamson	233,311	Oct. 12	633	175	18	851
Carriage-wheel guard	G. Bassett	224,267	Feb. 10	341	98	17	280
Carriage-wrench	E. A. Robbins	227,304	May 4	244	71	17	1018
Carriages. Extension bow-iron for	J. W. Anderson	226,015	Mar. 30	1245	351	17	710
Carrier:					352		
See Baby-carrier.	Sewing-machine-shuttle						
Egg-carrier.	carrier.						
Fruit and egg car-	Straw-carrier.						
rier.	Trace-carrier.						
Hay-carrier.							
Refrigerating but-							
ter-carrier.							
Cart	C. Hotz and M. Conrad	229,133	June 22	1187	325	17	1432
Cart. Breaking	D. C. Putnam	232,207	Sept. 14	396	110	18	597
Cart. Coal	V. D. P. J. Slattery	225,726	Mar. 23	888	259	17	640
Cart. Dumping	Z. Butt	226,649	Apr. 20	608	170	17	869
Cart. Dumping	B. Tweedle	234,351	Nov. 9	633	173	18	1101
Cart. Grain	T. T. Prosser	224,725	Feb. 17	865	247	17	377
Cart. Grain	T. T. Prosser	231,092	Aug. 10	572	162	18	347
Cart. Self-loading	A. Vreeland	226,638	Apr. 20	598	166	17	867
Cartridge	M. Coloney	225,463	Mar. 16	578	167	17	576
Cartridge	M. Coloney	225,464	Mar. 16	579	167	17	576
Cartridge	J. Gardner	226,167	Apr. 6	22	6	17	750
Cartridge	J. Saget	226,117	Mar. 30	1362	384	17	728
Cartridge	G. P. Salisbury	226,932	Apr. 27	943	262	17	935
Cartridge	A. Tillmes	227,191	May 4	121	35	17	997
Cartridge	B. E. Valentine	228,494	June 8	403	110	17	1300
Cartridge-assembling machine	G. P. Salisbury	232,907	Oct. 5	134	35, 36	18	760
Cartridge-belt	A. Mills	236,059	Dec. 28	1243	343	18	1510
Cartridge-box	V. Sanerbreay	225,169	Mar. 2	212	59	17	493
Cartridge capping and uncapping implement	C. W. Corr	227,349	May 11	312	90	17	1040
Cartridge capping and uncapping implement	F. G. Farnham	232,251	Sept. 14	451	124	18	607
Cartridge capping and uncapping implement	S. Glover	231,162	Aug. 17	659	186	18	367
Cartridge capping and uncapping implement	A. Worden	231,250	Aug. 17	770	215	18	385
Cartridge capping and uncapping tool	H. W. Harrington	232,028	Sept. 7	186	50	18	555
Cartridge-crimping machines. Feed attachment to metallic	L. S. Day and B. S. Lewis	228,447	June 8	338	93	17	1291
Cartridge implement	E. A. Folsom	227,236	May 4	177	52	17	1006
Cartridge implement	V. A. King	232,189	Sept. 14	374	104	18	594
Cartridge-loader	C. W. Corr	229,523	July 6	15	4	18	10
Cartridge-loader	J. L. Osgood	231,445	Aug. 24	980	276	18	426
Cartridge-loader	C. W. Osgood	235,699	Dec. 21	790	222	18	1428
Cartridge-loading implement	J. H. Barlow	229,301	June 29	1378	379	17	1467
Cartridge-loading implement	J. Brown, Jr.	232,879	Oct. 5	103	28	18	755
Cartridge-loading implement	F. G. Farnham	234,259	Nov. 9	529	146	18	1083
Cartridge-loading machine	O. F. Belcher	231,753	Aug. 31	1341	378	18	489
Cartridge-loading machine	H. S. Burns	232,238	Sept. 14	435	119	18	604
Cartridge packing and feeding case	E. G. Parkhurst	231,927	Sept. 7	56	14	18	534
Cartridge packing-case	E. G. Parkhurst	228,926	June 15	492	256	17	1388
Cartridge-primer	J. Gardner	230,412	July 27	1099	309	18	201
Cartridge-primer	J. H. Gill	225,591	Mar. 16	719	212	17	602
Cartridge-shells. Apparatus for annealing	E. R. Hunt	233,250	Oct. 12	558	154	18	838
Cartridge-shells. Implement for extracting	J. F. Marvin	235,444	Dec. 14	479	135	18	1369
Cartridge-shells. Machine for drawing	A. C. Hobbs	228,197	June 1	41	13, 14	17	1234
Cartridge-shells. Machine for feeding	T. G. Bennett	232,169	Sept. 14	348	98	18	589
Cartridge-shells. Machine for feeding	J. H. Barlow	233,062	Oct. 12	330	92	18	799
Cartridge-shells. Machine for feeding	M. V. B. Hill	233,095	Oct. 12	374	103	18	806
Cartridge-shells. Machine for heading	V. A. King	230,638	Aug. 3	51	14, 15	18	255
Cartridge-shells. Machine for uncapping	C. F. Bitz	233,317	Oct. 19	666	183	18	863
Cartridge-shells. Manufacture of	T. G. Bennett	224,765	Feb. 24	939	268	17	404
Cartridge-shells. Method and apparatus for annealing	T. G. Bennett	232,882	Oct. 5	107	29	18	755
Cartridge-shells. Tool for capping, uncapping, and loading	D. Brown, Jr.	232,173	Sept. 14	353	99	18	590
Cartridge. Shot-	S. W. Paine	233,946	Nov. 2	137	37	18	1009
Cartridge. Signaling	C. A. Faure and G. Trench	231,705	Aug. 31	1281	360	18	480
Carving-fork	C. L. Butler	229,802	July 13	349	98	18	68
Carving-fork	J. D. Frary	228,884	June 15	899	245	17	1382

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Carving-fork.....	A. H. North.....	233,539	Oct. 19	924	255	18	906
Carving implement.....	C. Keyworth.....	232,645	Sept. 28	925	254	18	699
Case:							
See Book-case. Pencil-case.							
Burial-case. Post-office case.							
Cartridge - packing case. Refrigerating show-case.							
Clock-case. Sewing-machine case.							
Eye-glass-case. Sewing-machine spool-case.							
File-case. Shot-case.							
Galvanic-battery case. Show-case.							
Head-light case. Ticket-case.							
Jewel-case. Toilet-case.							
Lock-case. Type-case.							
Medicine-case. Violin-case.							
Packing-case. Watch-case.							
Cash-register.....	J. R. Kenworthy.....	230,022	July 13	595	165	18	106
Casket or coffin handle.....	H. W. Morgan.....	234,320	Nov. 9	601	164	18	1095
Casket-trimmings.....	E. S. Wheeler.....	234,155	Nov. 9	403	109	18	1060
Casks and bottles under pressure. Apparatus for filling	J. C. G. Hüpfel.....	228,639	June 8	579	153	17	1325
Casks. Cleansing beer.....	G. S. and J. M. Fanning.....	231,219	Aug. 17	736	.....	18	379
Caster.....	F. S. Clarkson.....	223,838	Jan. 27	772	206	17	163
Caster.....	W. C. Coddington.....	223,839	Jan. 27	773	207	17	163
Caster.....	B. F. Culver.....	224,518	Feb. 17	631	182	17	337
Caster.....	A. A. Duer.....	229,033	June 22	1076	294	17	1416
Caster.....	J. F. Ohmer.....	230,191	July 20	802	227	18	148
Caster.....	O. Pederson.....	223,948	Jan. 27	907	241	17	184
Caster. Barrel and box.....	J. R. McCall.....	231,829	Aug. 31	1434	403	18	504
Caster. Distributing.....	H. Kahler.....	225,143	Mar. 2	187	53	17	488
Caster. Furniture.....	C. J. Brackebush.....	223,702	Jan. 20	603	161	17	125
Caster. Furniture.....	C. Brinton.....	225,335	Mar. 9	427	124	17	541
Caster. Furniture.....	C. Brinton.....	228,977	June 22	1017	277	17	1408
Caster. Furniture.....	M. Fiset.....	223,846	Jan. 27	781	208	17	164
Caster. Furniture.....	C. T. Schoen.....	229,478	June 29	1586	439	17	1496
Caster. Furniture.....	J. Toler.....	224,249	Feb. 3	312	90	17	255
Caster. Pickle.....	W. C. Beattie.....	225,786	Mar. 23	962	277	17	651
Caster. Sewing-machine.....	C. H. Morledge and L. Bennett.....	224,788	Feb. 24	974	277	17	409
Caster. Trunk.....	J. Simmons.....	234,496	Nov. 16	831	222	18	1141
Casting air-chambers. Mold for.....	W. Smith.....	235,305	Dec. 7	285	80	18	1328
Casting apparatus.....	C. A. Caspersson.....	229,953	July 13	517	143	18	94
Casting box. Stereotype.....	W. E. Gump.....	233,749	Oct. 26	1185	329	18	959
Casting car-wheels.....	W. S. G. Baker.....	230,853	Aug. 10	311	90	18	303
Casting car-wheels. Chill for.....	J. N. Barr.....	233,315	Oct. 19	663	183	18	863
Casting chilled mold-boards.....	B. B. Harris.....	228,064	May 25	1148	{ 326 327 }	17	1195
Casting chilled mold-boards. Mold for.....	G. Wiard.....	231,877	Aug. 31	1497	419	18	513
Casting chilled rolls. Mold for.....	B. T. Babbitt.....	232,227	Sept. 14	419	116	18	602
Casting. Flexible core for.....	T. Shehan.....	223,820	Jan. 27	753	201	17	160
Casting gun-barrels. Multiple mold for.....	B. T. Babbitt.....	232,228	Sept. 14	420	116	18	602
Casting hollow ingots. Mold and core for.....	C. B. Morse.....	235,796	Dec. 21	901	252	18	1447
Casting hollow ingots. Mold for.....	L. S. White.....	235,476	Dec. 14	519	150	18	1376
Casting ingots of uniform weight. Apparatus for.....	F. Moro.....	231,838	Aug. 31	1441	{ 405 406 }	18	505
Casting machines. Melting-pot for type.....	J. Whitelaw.....	235,188	Dec. 7	150	43	18	1307
Casting metal.....	J. Duff.....	229,308	June 29	1388	.....	17	1468
Casting metals. Apparatus for.....	W. H. O. Taylor and J. W. Wailes.....	224,245	Feb. 3	306	89	17	254
Casting metals on a chill. Mold for.....	T. M. Bissell.....	227,607	May 18	602	173	17	1099
Casting pencil-sharpeners. Mold for.....	W. K. Foster.....	235,626	Dec. 21	707	200	18	1414
Casting plow-points, &c.....	C. H. Elmer.....	231,777	Aug. 31	1366	384	18	493
Casting printers' leads. Machine for.....	J. Fleming.....	233,608	Oct. 26	1026	285	18	933
Casting printing-rolls for graining wooden ware. Manufacture of patterns for	D. H. Wilder.....	229,508	June 29	1623	447	17	1500
Casting rolls.....	E. L. Lamb.....	225,479	Mar. 16	595	172	17	579
Castings. Apparatus for producing chilled.....	W. A. Reid.....	231,499	Aug. 24	1038	291	18	435
Castings. Coating metal.....	J. Kintz.....	224,925	Feb. 24	1120	.....	17	433
Castrating-instrument.....	C. B. Halstead.....	234,914	Nov. 30	1370	368	18	1243
Catamenial sack.....	J. Korff.....	235,884	Dec. 28	1028	284	18	1476
Catapult.....	E. C. Bruce.....	223,274	Jan. 6	78	20	17	16
Catapult.....	O. H. Curtis.....	225,510	Mar. 16	632	184	17	585
Catarrh. Compound for.....	M. A. Reaves.....	234,808	Nov. 23	1237	.....	18	1214
Catarrh. Compound for nasal.....	G. L. Gorslene.....	224,084	Feb. 3	133	.....	17	225
Catarrh remedy.....	J. D. Olcott.....	236,071	Dec. 28	1254	.....	18	1512
Catch for holding chest-covers, &c.....	A. Montant.....	230,326	July 20	963	274	18	173
Ceiling. Fire-proof.....	J. D. Ottiwell.....	231,351	Aug. 17	873	246	18	402
Ceiling. Reed.....	C. W. Stauss.....	231,114	Aug. 10	594	169	18	351
Celluloid and other plastic compositions or substances. Machine for grinding and mixing	J. and C. Schmerber and J. A. Ar-rault.....	229,477	June 29	1585	438	17	1496
Celluloid collars, cuffs, &c. Elastic die for pressing.....	A. A. Sanborn.....	233,878	Nov. 2	58	16	18	997
Celluloid. Decorating.....	N. Hart and R. A. Bacon.....	233,851	Nov. 2	31	.....	18	992
Celluloid. Manufacture of.....	J. W. Hyatt.....	232,037	Sept. 7	195	53	18	556
Celluloid tubes. Necking.....	W. B. Carpenter.....	235,932	Dec. 28	1093	302	18	1486
Cement and artificial stone. Manufacture of.....	F. Ransome.....	223,815	Jan. 27	748	.....	17	158
Cement compound.....	H. Jordan.....	231,172	Aug. 17	676	.....	18	370
Cement. Gluc.....	J. Firmbach.....	225,119	Mar. 2	164	.....	17	484
Cement. Hydraulic.....	A. Y. Easterby.....	230,865	Aug. 10	323	.....	18	308
Cement. Manufacture of.....	E. Solvay.....	231,858	Aug. 31	1472	.....	18	510
Center-board for boats.....	M. W. Atwood.....	230,989	Aug. 10	461	131	18	328
Center-piece.....	P. Bedeau.....	233,595	Oct. 26	1015	282	18	931
Centering apparatus.....	C. L. Wolff.....	230,384	July 20	1032	291	18	184
Centering-machine.....	J. E. Dimsey.....	228,249	June 1	105	31	17	1243
Centrifugal machine.....	A. H. Blaisdell.....	226,271	Apr. 6	138	39	17	771
Centrifugal machine.....	S. S. Hepworth.....	225,600	Mar. 16	728	215	17	603
Centrifugal machine.....	R. Lafferty.....	235,638	Dec. 21	717	204	18	1416

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Centrifugal machine	E. Langen	235,259	Dec. 7	237	65	18	1320
Centrifugal machine	M. K. Muchin	235,797	Dec. 21	902	252	18	1447
Centrifugal machine	T. H. Müller	225,631	Mar. 16	765	225	17	610
Cereal. Prepared	J. F. Gent	223,847	Jan. 27	782	.....	17	164
Cereals. Mode of and apparatus for reducing	L. S. Chichester	230,468	July 27	1168	330	18	213
Chain	W. H. Dickey	229,104	June 22	1153	315	17	1427
Chain	W. H. Dickey	229,105	June 22	1154	316	17	1427
Chain	J. M. Dodge	228,735	June 15	713	196	17	1356
Chain	J. M. Dodge	229,978	July 13	543	151	18	98
Chain	J. M. Dodge	229,979	July 13	544	151	18	98
Chain	J. M. Dodge	234,548	Nov. 16	892	{ 239 } 240	18	1152
Chain. Bead	T. Granbery	232,814	Oct. 5	20	6	18	742
Chain-bolt	H. E. Russell, Jr.	231,195	Aug. 17	705	198	18	375
Chain. Drive	W. Emmerson	230,761	Aug. 3	188	55	18	277
Chain. Drive	W. D. Ewart	225,113	Mar. 2	156	44	17	483
Chain. Drive	E. L. Howe	231,580	Aug. 24	1130	316	18	450
Chain. Drive	A. Philippi	232,060	Sept. 7	219	60	18	560
Chain. Drive	L. M. Rumsey	230,662	Aug. 3	81	23	18	260
Chain. Drive	D. Schustek	233,118	Oct. 12	403	111	18	811
Chain. Drive	J. Simpson	224,737	Feb. 17	878	250	17	379
Chain. Drive	L. W. Stockwell	223,683	Jan. 20	583	157	17	122
Chain guide. Oscillating hand	A. Box	225,330	Mar. 9	423	123	17	540
Chain-link	M. D. Greenwood	228,063	May 25	1147	326	17	1195
Chain-link. Ornamental	S. Davidson	230,531	July 27	1236	348	18	224
Chain-links. Die for welding	J. H. Helm	223,345	Jan. 6	160	42	17	29
Chain. Log-carrying or bull	R. E. Gleason	223,904	Jan. 27	854	227	17	175
Chain. Ornamental	H. A. Church	230,745	Aug. 3	171	50	18	274
Chain. Ornamental	G. B. Whitney	223,971	Jan. 27	935	250	17	189
Chains. Device for making	H. Wexel	234,444	Nov. 16	771	207	18	1131
Chains. Making curb	P. Nerney	229,742	July 6	264	75	18	47
Chains. Manufacture of jewelry	R. F. Simmons	225,879	Mar. 23	1063	303	17	668
Chains. Manufacture of weldless	A. O. David	224,659	Feb. 17	798	{ 226 } 227	17	365
Chains. Slip-link for coupling	F. Kingston	227,793	May 18	819	231	17	1191
Chair:							
See Adjustable chair.	Locomotive-chair.						
Barber's chair.	Nursery-chair.						
Camp-chair.	Rail-chair.						
Child's chair.	Railway-chair.						
Child's high chair.	Reclining-chair.						
Convertible chair.	Revolving chair.						
Dentist's chair.	Rocking-chair.						
Dentist's and bar-ber's chair.	Rotary chair.						
Folding chair.	Tilting chair.						
Window-chair.							
Chair	W. R. Clough	234,537	Nov. 16	878	234	18	1150
Chair	F. A. W. Creager	233,478	Oct. 19	855	236	18	894
Chair	E. A. Dexter and J. Chase	227,619	May 18	616	177	17	1101
Chair	L. Heywood	232,496	Sept. 21	757	209	18	664
Chair	E. J. Smith	225,431	Mar. 9	529	152	17	557
Chair	E. T. Starr	224,489	Feb. 10	589	170	17	320
Chair	A. B. Stevens	230,970	Aug. 10	438	126	18	325
Chair and stool	G. K. Heist	231,576	Aug. 24	1126	315	18	449
Chair-brace	R. J. Farum	230,117	July 20	717	201	18	135
Chair-brace	S. P. Sorenson and J. C. Stanton	231,245	Aug. 17	763	213	18	384
Chair for attaching to door-steps, &c	E. E. Porter	227,832	May 18	859	244	17	1138
Chair head-rest	A. Schwaab	235,705	Dec. 21	799	225	18	1429
Chair-legs. Elastic tip for	W. B. Estabrooks	233,843	Nov. 2	22	6	18	990
Chair-seat	W. Briggs	231,002	Aug. 10	473	135	18	330
Chair-seat	J. Lemman	226,082	Mar. 30	1320	372	17	721
Chair seat and back	M. Merklen	228,662	June 8	601	160	17	1329
Chair seats and backs. Manufacture of	F. D. Newton	228,377	June 1	247	70	17	1267
Chair-seating machine	S. C. Miller	229,734	July 6	258	72	18	46
Chair, settee, and vehicle seat	J. C. Hopkins	235,437	Dec. 14	468	133	18	1367
Chairs. Detachable rocker for	A. Reynolds	232,147	Sept. 14	318	90	18	584
Chamber-muffler	T. H. Lane	228,539	June 8	453	123	17	1307
Chamber-pail	H. Gerken	233,669	Oct. 26	1098	305	18	945
Chandelier	C. M. Jones, Jr.	231,052	Aug. 10	527	148	18	339
Chandelier	F. Rhind	224,226	Feb. 3	289	83	17	251
Chandelier	F. Rhind and J. Farthing	233,433	Oct. 19	806	222	18	886
Chandelier	E. M. Smith	235,036	Nov. 30	1517	408	18	1268
Chandelier. Extension	G. Bohner	228,244	June 1	100	30	17	1243
Chandelier. Extension	C. Deavs	223,893	Jan. 27	839	224	17	173
Chandelier. Extension	T. D. Hotchkiss	234,477	Nov. 16	811	217	18	1138
Chandelier. Extension	A. H. Jones	225,612	Mar. 16	746	220	17	606
Chandelier. Extension	J. Kintz	224,442	Feb. 10	544	156	17	312
Chandelier suspension-slide	J. F. Brown	229,860	July 13	416	115	18	78
Change and delivering tickets in street-cars, stores, &c. Making	H. R. Robbins	225,872	Mar. 23	1056	302	17	667
Charcoal-kiln	W. A. Miles	225,296	Mar. 9	382	112	17	533
Charcoal-kiln	W. A. Miles	225,297	Mar. 9	383	112	17	533
Charm and similar articles of jewelry	F. E. Gilbert	225,891	Mar. 23	1002	288	17	658
Chart. Dress-maker's	C. H. Griffin	228,527	June 8	439	120	17	1305
Chart. Dress-maker's	M. E. Riley	223,543	Jan. 13	411	110	17	85
Chart for drafting garments. Pattern	E. J. Linck	224,832	Feb. 24	1017	{ 288 } 289 290	17	416
Chart for use in cutting dresses. Pattern	M. E. Bruce	229,088	June 22	1138	{ 310 } 311	17	1425
Check. Baggage	W. W. Wilcox	230,455	July 27	1157	326	18	211
Check. Banker's	J. Lewis	228,087	May 25	1173	334	17	1200
Check-bit	B. T. Henry	229,886	July 13	444	122	18	83
Check-blank. Metallic	J. Murdock, Jr.	226,871	Apr. 27	871	242	17	923
Check-book. Pocket	C. B. Perrigo	231,497	Aug. 24	1035	290	18	435

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Check-books. Leaf-cutter for.....	L. W. Arnold.....	230,602	Aug. 3	5	1	18	248
Check-box. Restaurant.....	W. H. H. Wood.....	225,036	Mar. 2	70	20	17	468
Check-book and trace-carrier. Combined.....	W. S. Thayer.....	231,941	Sept. 7	75	19	18	536
Check. Monetary.....	J. O. Carpenter.....	226,974	Apr. 27	991	275	17	943
Check-receiver.....	J. Casey.....	235,740	Dec. 21	838	234	18	1436
Check-register.....	J. Crawford.....	225,920	Mar. 30	1120	320	17	691
Check-row cords. Coupling hook or button for.....	G. D. Haworth.....	236,025	Dec. 28	1201	332	18	1504
Check-row machine.....	G. J. Hyer.....	234,780	Nov. 23	1196	{ 323 324 }	{ 18 18 }	{ 1208 1208 }
Check-row wires. Stop and wire for.....	J. C. Dupee.....	232,472	Sept. 21	728	202	18	659
Check-rower.....	S. R. Allee.....	229,350	June 29	1444	397	17	1475
Check-rower.....	F. E. Berry and J. Putman.....	226,700	Apr. 20	661	184	17	878
Check-rower.....	E. A. Morphew.....	223,679	Jan. 20	579	156	17	121
Check-rower.....	J. Putman.....	225,165	Mar. 2	207	58	17	492
Check-rower.....	A. J. Simmons.....	234,081	Nov. 2	308	85	18	1037
Check-rower attachment.....	J. M. Shackelford.....	231,242	Aug. 17	761	213	18	383
Cheese-bandage.....	B. W. Horton.....	223,915	Jan. 27	868	230	17	178
Cheese-curd sifter and picker.....	F. M. Cummings.....	234,543	Nov. 16	884	236	18	1151
Cheese-cutter.....	W. R. Green.....	226,513	Apr. 13	434	122	17	830
Cheese-cutter.....	L. J. Smith.....	236,102	Dec. 28	1292	355	18	1519
Cheese-knife.....	V. Barker and J. Barbour.....	230,393	July 27	1079	303	18	198
Cheese-press.....	G. F. White.....	228,291	June 1	160	44	17	1252
Cheese-safe.....	W. H. Gordon.....	228,627	June 8	565	150	17	1324
Cheese-vat.....	J. B. Marquis.....	228,366	June 1	232	65, 66	17	1264
Chemise.....	J. S. Baker.....	233,462	Oct. 19	839	231	18	891
Chenille.....	F. W. Huppelsberg.....	224,438	Feb. 10	538	155	17	311
Chenille-twisting machine.....	F. W. Huppelsberg.....	227,788	May 18	813	230	17	1131
Chest: See Flour and meal chest.							
Child's chair.....	W. F. Barber.....	225,548	Mar. 16	673	197	17	592
Child's chair.....	G. M. Patten.....	230,048	July 13	621	173	18	110
Child's chair.....	A. B. Stevens.....	229,061	June 22	1107	301	17	1420
Child's chair.....	A. B. Stevens.....	230,671	Aug. 3	92	27	18	261
Child's chair and carriage.....	J. W. Kenna.....	224,923	Feb. 24	1118	319	17	433
Child's chair and carriage.....	J. Mosler and H. Ladewig.....	229,906	July 13	462	128	18	85
Child's chair and carriage guard.....	J. B. Littell.....	231,918	Sept. 7	46	11	18	532
Child's high chair.....	G. C. Paine.....	226,345	Apr. 6	222	64	17	786
Chimney-bonnet and wind-guard.....	N. U. Walker.....	233,584	Oct. 19	977	270	18	915
Chimney-cap.....	W. D. Bartlett.....	232,434	Sept. 21	684	189	18	652
Chimney-cap.....	C. H. L'Amoureux.....	230,483	July 27	1187	334	18	216
Chimney-cap.....	N. U. Walker.....	231,463	Aug. 24	999	281	18	430
Chimney cap and cowl.....	C. C. Caywood.....	224,873	Feb. 24	1066	305	17	424
Chimney-cap. Metal.....	J. Bates.....	234,647	Nov. 23	1039	279	18	1183
Chimney-caps, &c. Ventilator for.....	B. W. Felton.....	226,507	Apr. 13	428	119	17	829
Chimney-top and ventilator.....	G. W. and L. Demond.....	224,154	Feb. 3	206	60	17	237
Chimney-ventilator.....	J. C. Henderson.....	232,642	Sept. 23	922	254	18	699
Chisel.....	J. D. Baxter.....	230,223	July 20	839	237	18	154
Chisel for wood-turning. Gage.....	T. S. Durgin.....	232,634	Sept. 28	914	251	18	697
Chisel. Mortising.....	R. Hackett.....	234,669	Nov. 23	1070	288	18	1188
Chloride of lime. Manufacture of.....	E. Solvay.....	231,860	Aug. 31	1473	.....	18	510
Chock. Gaff-top-sail-sheet.....	W. Metzler.....	224,027	Feb. 3	63	19	17	214
Chop-separator and bran-cleaner.....	J. Lampert.....	226,234	Apr. 6	103	27, 28	17	764
Chopper: See Cotton-chopper. Meat-chopper.							
Christmas-tree candle-holder.....	J. A. Kiesele.....	227,693	May 18	703	199	17	1114
Christmas-tree candle-holder.....	J. F. Young.....	227,088	Apr. 27	1136	311	17	964
Christmas-tree holder.....	H. Albrecht.....	224,624	Feb. 17	762	215	17	358
Chromotrope. Transparent.....	J. B. Erwin and H. Van Altena.....	233,084	Oct. 12	354	97	18	803
Chronograph.....	B. Le Coultre.....	230,787	Aug. 3	216	63	18	282
Chronographs. Minute-counting attachment for.....	P. M. Doret.....	223,220	Jan. 6	13	3	17	5
Chuck.....	G. B. Kirkham.....	227,114	May 4	26	8	17	952
Chuck.....	M. McAnly.....	224,345	Feb. 10	432	124	17	294
Chuck.....	C. J. Olin.....	235,283	Dec. 7	264	74	18	1324
Chuck.....	J. H. Westcott.....	228,426	June 1	292	83	17	1274
Chuck. Drill.....	P. A. Reno.....	234,066	Nov. 2	292	81	18	1034
Chuck. Drill.....	A. L. Sweet.....	226,370	Apr. 6	246	72	17	791
Chuck. Drill.....	R. E. Wilcox.....	225,902	Mar. 23	1085	310	17	672
Chuck for turning-lathes.....	C. Racine.....	227,297	May 4	233	69	17	1016
Chuck for turning polygonal bodies. Lathe.....	S. Block.....	229,855	July 13	411	114	18	77
Chuck for turning polygonal bodies. Lathe.....	L. Weisse.....	235,716	Dec. 21	812	228	18	1431
Chuck. Lathe.....	C. H. Reid.....	226,246	Apr. 6	112	31	17	766
Chuck. Lathe.....	J. E. Wilson.....	234,216	Nov. 9	483	132	18	1075
Chuck. Lathe.....	W. H. Wilson.....	235,836	Dec. 21	949	265	18	1455
Chuck. Nipple.....	A. Saunders.....	235,902	Dec. 28	1050	290	18	1479
Chuck. Planer.....	J. H. Greenwood.....	233,846	Nov. 2	25	6, 7	18	990
Chuck. Planing-machine.....	B. F. Stephens.....	235,469	Dec. 14	512	148	18	1375
Chuck. Scroll.....	D. E. Whiton.....	224,119	Feb. 3	173	49	17	232
Chuck. Watch-maker's lathe.....	C. Hopkins.....	233,097	Oct. 12	377	104	18	806
Churn.....	W. H. Baldwin.....	230,687	Aug. 3	107	31	18	264
Churn.....	T. C. Cooper.....	233,985	Nov. 2	191	50	18	1018
Churn.....	J. Copeland.....	230,405	July 27	1091	307	18	200
Churn.....	G. W. De Puy.....	235,136	Dec. 7	88	27	18	1296
Churn.....	J. Foreman.....	229,597	July 6	104	28	18	24
Churn.....	G. W. Freeman.....	229,599	July 6	106	28, 29	18	24
Churn.....	J. Gehr.....	225,007	Mar. 2	28	8	17	461
Churn.....	A. Groves.....	226,911	Apr. 27	915	255	17	930
Churn.....	F. R. Hawley.....	223,286	Jan. 6	96	23	17	19
Churn.....	H. H. Heck and D. Reed.....	231,575	Aug. 24	1125	315	18	449
Churn.....	J. D. Hobbs.....	225,832	Mar. 23	1011	290	17	659
Churn.....	J. H. Holmes.....	232,717	Sept. 28	1009	278	18	713
Churn.....	J. M. Keen.....	222,646	June 8	588	156	17	1327
Churn.....	J. Y. Lanfair.....	230,484	July 27	1188	{ 334 335 }	{ 18 18 }	{ 216 216 }
Churn.....	L. W. Leake.....	225,620	Mar. 16	755	222	17	608

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Churn.....	G. E. H. Lüttschwager.....	232,138	Sept. 14	310	87	18	583
Churn.....	J. M. Mattoon.....	231,436	Aug. 24	970	273	18	425
Churn.....	J. McClure.....	233,786	Oct. 26	1223	340	18	966
Churn.....	A. Mearns.....	229,729	July 6	251	70	18	45
Churn.....	S. P. Mecay.....	223,599	Jan. 13	476	129	17	96
Churn.....	M. F. Mitchel.....	234,418	Nov. 16	740	200	18	1127
Churn.....	J. W. Neal.....	227,289	May 4	225	67	17	1015
Churn.....	G. R. Nebinger.....	223,652	Jan. 20	545	147	17	116
Churn.....	I. Nieukirk.....	227,045	Apr. 27	1081	{ 298 299 }	17	956
Churn.....	H. A. Rideout.....	223,452	Jan. 13	298	79	17	66
Churn.....	H. Smelsor.....	224,112	Feb. 3	165	47	17	231
Churn.....	C. M. Smith.....	230,154	July 20	762	212	18	141
Churn.....	G. R. Turner.....	224,493	Feb. 10	595	172	17	321
Churn.....	H. Van De Water.....	224,059	Feb. 3	102	30	17	220
Churn and butter-worker. Combined.....	E. Williams.....	223,786	Jan. 20	693	187	17	140
Churn-cover.....	E. C. Richardson.....	224,305	Feb. 10	386	109	17	287
Churn-cover.....	M. O. Stoddard.....	227,856	May 18	883	251	17	1142
Churn-dasher.....	W. H. Brookman.....	223,879	Jan. 27	827	220	17	171
Churn-dasher.....	J. E. Finley.....	223,642	Jan. 20	536	144	17	114
Churn-dasher.....	J. E. Finley.....	223,643	Jan. 20	537	145	17	115
Churn-dasher.....	S. J. Linn.....	230,295	July 20	928	264	18	167
Churn-dasher.....	W. D. Snell.....	225,655	Mar. 16	789	231	17	614
Churn-dasher.....	J. M. Teasdale.....	229,496	June 29	1611	444	17	1498
Churn-dasher.....	H. Tilden.....	223,413	Jan. 6	231	61	17	42
Churn-dasher.....	H. W. White.....	229,784	July 6	316	88	18	54
Churn-dasher staff.....	L. T. Reid.....	234,065	Nov. 2	292	80	18	1034
Churn-head. Revolving.....	J. McDermaid.....	235,549	Dec. 14	608	173	18	1391
Churn-motor.....	S. T. Carter.....	231,534	Aug. 24	1077	302	18	441
Churn-motor.....	J. and J. M. Henderson and J. Notson.....	224,430	Feb. 10	527	152	17	309
Churn-motor.....	J. P. Rogers.....	225,644	Mar. 16	779	228	17	612
Churn-motor.....	C. S. Wiley.....	232,161	Sept. 14	341	95	18	588
Churn-operating device.....	J. B. Bolinger.....	223,700	Jan. 20	601	161	17	124
Churn-operating machine.....	L. G. Sweet.....	223,258	Jan. 6	62	16	17	13
Churn-power.....	N. Boren, Jr.....	229,947	July 13	511	141	18	93
Churn-power.....	J. Brace.....	231,000	Aug. 10	471	134	18	330
Churn-power.....	G. A. Brungle.....	226,704	Apr. 20	666	185	17	879
Churn-power.....	T. J. Britain.....	224,767	Feb. 24	941	269	17	404
Churn-power.....	H. Brown.....	232,451	Sept. 21	708	195	18	655
Churn-power.....	C. S. Casterlin.....	233,141	Oct. 12	430	118	18	815
Churn-power.....	C. Howard.....	231,490	Aug. 24	1027	288	18	434
Churn-power.....	Z. T. Parker.....	224,602	Feb. 17	737	209	17	355
Churn-power.....	G. W. Sampson.....	227,305	May 4	245	71	17	1018
Churn-power.....	J. S. Smith.....	225,727	Mar. 23	889	250	17	640
Churn-power.....	B. D. Tabor.....	230,084	July 13	658	184	18	116
Churn-power.....	V. H. Winchell.....	225,777	Mar. 23	952	274	17	649
Churn-power gearing.....	J. H. and E. R. Elmer.....	229,391	June 29	1487	409	17	1481
Churn. Revolving-body.....	H. N. Frentress.....	227,239	May 4	179	52	17	1007
Churn. Rotary.....	L. W. Murch.....	233,272	Oct. 12	582	161	18	842
Churning apparatus.....	C. B. Davidson.....	234,253	Nov. 9	522	144	18	1082
Churning-machine. Rocking-chair.....	E. M. Gaskill.....	233,500	Oct. 19	876	242	18	897
Cider compound. Condensed.....	E. R. Cleveland.....	233,728	Oct. 26	1163	.....	18	955
Cider-mill.....	J. Mercier.....	231,439	Aug. 24	973	274	18	425
Cider-mill and wine-press.....	A. C. Bell.....	235,198	Dec. 7	163	46	18	1309
Cider-press.....	E. Dill.....	233,333	Oct. 19	682	187	18	866
Cider-press.....	H. A. King.....	235,685	Dec. 21	771	218	18	1425
Cider-press.....	J. Shively.....	232,307	Sept. 14	514	143	18	618
Cider-press.....	H. S. Tompkins.....	226,687	Apr. 20	649	180	17	876
Cider-press.....	G. Ziegler.....	223,972	Jan. 27	935	250	17	189
Cider press and mill. Combined.....	W. H. Harman.....	235,430	Dec. 14	461	130	18	1366
Cigar-box.....	J. M. Roberts.....	236,089	Dec. 28	1271	350	18	1516
Cigar-box for preventing revenue frauds.....	P. McAlcer.....	225,848	Mar. 23	1024	295	17	662
Cigar-bunching machine.....	M. Greensfelder.....	226,849	Apr. 27	839	233	17	818
Cigar-clipper.....	W. H. Gilman.....	235,678	Dec. 21	761	216	18	1423
Cigar-cutter.....	F. C. Miller.....	234,797	Nov. 23	1219	329	18	1211
Cigar-cutter.....	J. Wienhold.....	232,864	Oct. 5	80	23	18	752
Cigar-flavoring composition.....	H. K. Reiss.....	231,682	Aug. 31	1255	.....	18	476
Cigar-holder.....	C. Carrington.....	232,453	Sept. 21	709	196	18	655
Cigar-light.....	E. L. Bryant.....	223,704	Jan. 20	605	162	17	125
Cigar-lighting stand.....	J. Kintz.....	227,267	May 4	206	60	17	1012
Cigar-machine feeding device.....	F. A. H. Donath and C. E. F. Jasper.....	226,226	Apr. 6	89	24	17	762
Cigar-mold.....	N. Du Brul.....	230,535	July 27	1241	350	18	225
Cigar-mold.....	F. C. Miller and H. C. Peters.....	234,796	Nov. 23	1217	329	18	1211
Cigar-mold press.....	W., A., and A. Osenbrück.....	235,005	Nov. 30	1481	{ 398 399 }	18	1262
Cigar-packing press.....	F. C. Miller.....	224,208	Feb. 3	270	78	17	248
Cigars. Putting up.....	J. Felbel.....	226,392	Apr. 13	276	82	17	806
Cigarette.....	B. Baron.....	232,873	Oct. 5	97	26	18	754
Cigarette.....	J. R. Sifton.....	235,392	Dec. 14	409	115	18	1357
Cigarette.....	E. L. Witthaus.....	229,931	July 13	493	137	18	90
Cigarette-machine.....	O. W. Allison.....	231,947	Sept. 7	81	21, 22	18	537
Cigarette-machine.....	L. J. Bejottes.....	235,985	Dec. 28	1154	{ 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000	18	1497
Cigarette-machine.....	A. Decoufflé.....	230,177	July 20	785	{ 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 		



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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Cinder guard or deflector for railway-carriage windows.	A. Mitchell.....	226,869	Apr. 27	870	242	17	923
Cinder-shovel. Wire.....	J. B. Haight.....	229,119	June 22	1171	321	17	1430
Cisterns. Flushing.....	J. Demarest.....	232,009	Sept. 7	164	42	18	551
Clamp:							
See Box-clamp. Jeweler's clamp.							
Cabinet-maker's Lever-clamp.							
clamp. Moldboard-clamp.							
Flooring-clamp. Pipe-clamp.							
Harness-clamp. Saw-clamp.							
Harrow-frame Screw-clamp.							
clamp. Skate-clamp.							
Ironing-board Suspender-clamp.							
clamp. Type-clamp.							
Clamp.....	T. J. Carrick.....	229,670	July 6	181	50	17	35
Clamp.....	G. J. Dickson.....	225,000	Mar. 2	20	6	17	460
Clamp for attaching handles to earthenware and glass vessels.	C. J. Brackebush.....	231,263	Aug. 17	782	219	18	387
Clamp for carrying school-books.....	H. Tollner.....	224,250	Feb. 3	313	90	17	255
Clamping and tearing checks or paper. Device for.	W. G. Morton.....	233,686	Oct. 26	1115	310	18	947
Clapboard-machine.....	A. Cunningham.....	230,110	July 20	711	{ 198 199 }	18	134
Clapboard-machine.....	A. Cunningham.....	230,111	July 20	712	199	18	134
Clapboard-machine.....	A. Cunningham.....	230,112	July 20	713	199	18	134
Clapboard-sawing machine.....	S. Babcock.....	232,326	Sept. 21	549	152	18	630
Clasp:							
See Album-clasp. Line-clasp.							
Bracelet-clasp. Necklace-clasp.							
Corset-clasp. Satchel-clasp.							
Gaiter-clasp. Shoe-clasp.							
Hame-clasp. Suspender-clasp.							
Harness-clasp.							
Clasp.....	E. M. Bear.....	233,964	Nov. 2	168	43	18	1014
Clasp.....	D. A. Johnson.....	233,099	Oct. 12	381	104	18	807
Clasp.....	J. G. Klett.....	233,774	Oct. 26	1211	336	18	964
Clasp.....	J. R. Rheubottom.....	228,118	May 25	1204	343	17	1205
Clasp.....	C. C. Shelby.....	226,559	Apr. 13	482	135	17	838
Clasp-knife.....	A. Frieberfschauser.....	226,910	Apr. 27	914	254	17	930
Clasp-knife.....	E. Jansen.....	229,706	July 6	222	61	18	41
Clasp or link.....	P. W. Doherty.....	226,725	Apr. 20	686	191	17	882
Clay and mortar. Tempering-wheel for.....	C. W. Raymond.....	227,835	May 18	861	245	17	1138
Clay-digger.....	C. Bush.....	232,674	Sept. 23	961	264	18	705
Clay into tiles, &c. Machine for pressing and molding.	I. Hogeland.....	224,015	Feb. 3	50	16	17	212
Clay-press.....	J. F. Wilcox and E. M. Pearson.....	236,132	Dec. 28	1335	366	18	1526
Clay-tempering machine.....	W. L. Drake.....	229,810	July 13	356	99	18	69
Clay to obtain porous and slagged bodies. Preparing.	G. Praetorius.....	235,961	Dec. 28	1128	{ 311 312 }	18	1492
Clay washer and grinder.....	G. L. Witsil.....	229,932	July 13	493	{ 137 138 }	18	90
Cleaner:							
See Boiler-cleaner. Lamp-chimney cleaner.							
Carpet-cleaner. Pipe-cleaner.							
Bran-cleaner. Rice-cleaner.							
Drill-hole cleaner. Seed-cleaner.							
Feather-cleaner. Slate-cleaner.							
Fine-cleaner. Thread-cleaner.							
Grain-drill-hoe Tube-cleaner.							
cleaner.							
Clevis.....	W. A. Jennings.....	235,248	Dec. 7	224	60	18	1318
Clevis.....	E. Wansbrongh.....	226,137	Mar. 30	1382	390	17	732
Clevis. Self-locking.....	M. H. Simmons.....	232,129	May 25	1216	346	17	1207
Clinometer.....	F. C. Davidson.....	226,723	Apr. 20	684	191	17	882
Clip:							
See Axle-clip. Tug-clip.							
Hauling-clip. Whiffletree-clip.							
Spring-saddle clip.							
Clipper. Animal.....	J. K. Priest.....	233,695	Oct. 26	1124	314	18	949
Clock.....	E. Davies.....	231,769	Aug. 31	1353	382	18	492
Clock.....	J. H. Gerry.....	236,016	Dec. 28	1190	329	18	1502
Clock. Alarm.....	H. J. Davies.....	230,246	July 20	876	249	18	158
Clock. Alarm.....	F. Kroeber.....	228,202	June 1	46	15	17	1235
Clock. Calendar.....	C. S. Lewis.....	228,261	June 1	123	35, 36	17	1246
Clock. Calendar.....	O. F. Schultz.....	231,732	Aug. 31	1317	371	18	486
Clock. Calendar.....	W. H. Stewart.....	225,888	Mar. 23	1071	306	17	669
Clock. Calendar.....	P. Wagner.....	234,355	Nov. 9	639	174	18	1101
Clock. Calendar.....	J. E. Young.....	235,605	Dec. 14	673	{ 190 191 }	18	1401
Clock-calendar. Self-adjusting.....	I. W. Johnson.....	230,134	July 20	739	206	18	138
Clock-case.....	H. J. Davies.....	223,613	June 8	547	146	17	1321
Clock-case.....	H. J. Davies and D. M. Somers.....	225,112	Mar. 2	155	44	17	483
Clock-case.....	H. J. Davies and D. M. Somers.....	228,614	June 8	549	146	17	1321
Clock-case.....	G. Havell.....	223,193	June 1	38	12	17	1233
Clock-case.....	J. Scheina.....	229,643	July 6	148	42	18	31
Clock-case.....	J. Scheina.....	235,655	Dec. 21	737	209	18	1419
Clock-dial. Geographical.....	C. F. Bourquin.....	230,227	July 20	842	238	18	154
Clock. Electric.....	J. Happersberger.....	226,401	Apr. 13	259	85	17	808
Clock. Electric time-registering.....	J. B. Johnson.....	223,517	Jan. 13	381	101	17	80
Clock. Electro-magnetic.....	D. F. Sweet.....	224,243	Feb. 3	304	88	17	254
Clock-escapement.....	M. Schwalbach.....	232,073	Sept. 7	236	65	18	563
Clock lock-work attachment.....	H. W. Barnes.....	234,941	Nov. 30	1398	376	18	1247
Clock. Marine.....	I. Farnsworth.....	234,863	Nov. 30	1306	352	18	1232
Clock-movement.....	A. E. Hotchkiss.....	223,673	Jan. 20	572	154	17	120
Clock movement. Calendar.....	W. L. Bundy.....	225,968	Mar. 30	1189	338	17	701
Clock-pendulum attachment.....	J. A. Barrett.....	235,665	Dec. 21	748	213	18	1421

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. G.	Vol.	Page.
Clock-pendulum. Compensating.....	J. W. Hile.....	231,800	Aug. 31	1401	395	18	499
Clock-pendulum regulator.....	E. Davies.....	231,770	Aug. 31	1359	382	18	492
Clock-pendulums. Suspension of.....	S. B. Jerome.....	230,283	July 20	915	260	18	165
Clock. Striking.....	W. D. Chase.....	224,768	Feb. 24	942	269	17	404
Clock striking mechanism.....	G. W. Hendrick.....	228,895	June 15	909	248	17	1383
Clock. Table.....	F. E. Morgan and J. A. Evarts.....	233,537	Oct. 19	922	254	18	906
Clock. Time-registering.....	E. Prescott.....	223,535	Jan. 13	402	107	17	83
Clock. Traveling.....	H. Reinecke.....	234,612	Nov. 16	984	262	18	1167
Clock-winding and gas-cock mechanism. Combined.....	G. P. Ganster.....	234,557	Nov. 16	905	243	18	1154
Clock-winding attachment.....	J. H. Gerry.....	236,017	Dec. 28	1191	329	18	1502
Clock-work motors. Case for.....	S. R. Wilmot.....	223,425	Jan. 6	243	65	17	44
Clocks and watches. Second-hand attachment for.....	A. Bonzon.....	224,635	Feb. 17	771	218	17	360
Clod-cutter and harrow. Combined.....	W. Wimpee.....	233,056	Oct. 5	312	86		
Closet:							
<i>See</i> Bath-closet. Water-closet.							
Closing and sealing device.....	J. H. Andoun.....	226,219	Apr. 6	83	22	17	760
Cloth-cutting knife.....	N. Rubenstein.....	223,544	Jan. 13	412	110	17	85
Cloth folding and cutting machine.....	G. W. Baker.....	224,571	Feb. 17	697	199	17	348
Cloth. Instrument for turning edges of.....	A. Y. Moorefield.....	229,447	June 29	1550	427	17	1490
Cloth, &c. Machine for cutting.....	J. Crôte.....	227,494	May 11	471	135	17	1066
Cloth, &c. Machine for cutting.....	H. Stein.....	226,427	Apr. 13	324	93		
Cloth or fabric. Glass.....	H. Hammesfahr.....	232,122	Sept. 14	293	83	18	580
Cloth-pressing machine.....	P. Miller.....	228,375	June 1	246	69	17	1266
Cloth-rolling machine.....	A. Brown.....	225,557	Mar. 16	685	200	17	595
Cloth-shearing machine.....	D. C. Sumner.....	229,648	July 6	155	43	18	32
Cloth-shrinking apparatus.....	J. C. McLoughlin and A. W. Almqvist.....	228,093	May 25	1180	336	17	1201
Cloth sizing, stretching, and drying machine.....	N. Gray and E. G. Cushing.....	234,771	Nov. 23	1182	318	18	1206
Cloth stretching and drying machine.....	J. Sinnamon.....	232,854	Oct. 5	69	20		
Cloth-stretching machine.....	H. D. B. Lefferts.....	231,881	Aug. 31	1501	421	18	514
Clothes-dampener.....	J. P. Ellacott.....	234,118	Nov. 9	363	100	18	1054
Clothes-drier.....	R. Larter.....	229,831	July 13	382	106	18	73
Clothes-drier.....	C. Palmer.....	235,008	Nov. 30	1484	400	18	1263
Clothes-drier.....	G. W. Rogers.....	227,385	May 11	353	103	17	1046
Clothes-drier.....	J. E. White.....	233,176	Oct. 12	470	129	18	822
Clothes-hook.....	J. W. Drew.....	224,003	Feb. 3	38	11	17	209
Clothes-hook.....	P. Miles.....	225,942	Mar. 30	1151	327	17	695
Clothes-line adjuster.....	F. Bonaventure.....	226,384	Apr. 13	269	80	17	805
Clothes-line-adjusting device.....	E. Weber.....	225,958	Mar. 30	1179	335	17	700
Clothes-line and clamp.....	R. Larter.....	226,235	Apr. 6	104	28	17	764
Clothes-line fastener.....	J. T. Cronk.....	224,657	Feb. 17	797	225	17	365
Clothes-line fastening.....	E. A. Rico.....	235,964	Dec. 28	1133	313	18	1493
Clothes-line holder for windows.....	G. F. Sievern.....	226,363	Apr. 6	238	70	17	789
Clothes-line stretcher and fastener.....	J. H. Steen.....	226,367	Apr. 6	243	71	17	790
Clothes-pin.....	A. C. Ashald.....	232,915	Oct. 5	147	39	18	762
Clothes-pounder.....	H. P. Hewitt and J. E. Bennett.....	223,508	Jan. 13	371	99	17	78
Clothes-pounder.....	H. Howell.....	223,647	Jan. 20	542	146	17	115
Clothes-pounder.....	D. C. Jordan.....	232,976	Oct. 5	219	59	18	774
Clothes-pounder.....	J. Keller, Jr.....	225,392	Mar. 9	485	141	17	550
Clothes-pounder.....	J. Pfister.....	223,059	Sept. 7	218	60	18	560
Clothes-pounder.....	F. G. Powers.....	233,800	Oct. 26	1240	345	18	969
Clothes-pounder.....	G. H. Russell.....	231,731	Aug. 31	1317	371	18	486
Clothes-pounder.....	D. M. Skinner.....	231,456	Aug. 24	992	279	18	428
Clothes-pounder.....	D. E. Taylor.....	235,107	Dec. 7	49	15	18	1289
Clothes-pouuder.....	J. W. Troeger.....	228,142	May 25	1232	350	17	1209
Clothes-pouuder.....	J. W. Tullis.....	224,747	Feb. 17	888	254	17	381
Clothes-pouuder.....	W. B. Wickes.....	228,846	June 15	857	234	17	1376
Clothes-pouuder.....	E. S. Wicklin.....	228,010	May 25	1093	311	17	1186
Clothes-prop.....	G. E. Meeker and E. R. Fisher.....	230,315	July 20	946	269	18	170
Clothes-rack and mantel. Combined.....	C. C. Field.....	227,749	May 18	772	217	17	1124
Clothes-rack. Shelf-bracket.....	E. B. Sims.....	224,961	Feb. 24	1153	330	17	438
Clothes-slide.....	W. N. Wylie.....	225,202	Mar. 2	249	70	17	500
Clothes-sprinkler.....	J. S. Zerbe.....	233,130	Oct. 12	418	115	18	813
Clothes-wringer.....	A. Barker.....	235,491	Dec. 14	535	154	18	1379
Clothes-wringer.....	R. Dudley and B. Hershey.....	229,107	June 22	1157	317	17	1428
Clothes-wringer.....	B. Hershey.....	229,129	June 22	1182	324	17	1431
Clothes-wringer.....	O. D. Hudson.....	230,942	Aug. 10	407	117	18	320
Clothes-wringer.....	S. Huffman.....	234,577	Nov. 16	932	250	18	1158
Clothes-wringer.....	C. D. Lawrence and J. B. Kerr.....	224,019	Feb. 3	55	17	17	212
Clothes-wringer.....	E. J. Smith.....	231,112	Aug. 10	592	168	18	351
Clutch.....	C. F. Harlow and W. P. Barker.....	227,523	May 11	503	144	17	1071
Clutch.....	W. J. Ray.....	228,276	June 1	143	40	17	1249
Clutch.....	J. D. Westgate.....	229,652	July 6	160	44	18	32
Clutch. Automatic reversible.....	L. Onderdonk.....	231,843	Aug. 31	1450	407	18	507
Clutch. Automatic safety.....	B. E. Henriksen.....	229,606	July 6	114	30	18	25
Clutch for machinery. Friction.....	W. E. Hartmann and A. Raymond.....	230,773	Aug. 3	201	58, 59	18	279
Clutch for rolls.....	U. Haskin.....	228,893	June 15	907	248	17	1383
Clutch. Friction.....	C. J. Galloway and J. H. Beckwith.....	226,302	Apr. 6	177	51, 52	17	778
Clutch. Friction.....	W. Oesterlein.....	228,552	June 8	471	127	17	1310
Clutch. Friction.....	W. Oesterlein.....	235,558	Dec. 14	617	176	18	1392
Clutch. Friction.....	O. S. Presbrey.....	234,890	Nov. 30	1339	361	18	1238
Clutch-operating mechanism.....	T. W. Capen.....	229,092	June 22	1142	312	17	1426
Clutch. Pneumatic safety.....	B. E. Henriksen.....	223,287	Jan. 6	97	24	17	19
Coach or harness pad.....	E. R. Cahoon and N. Teas.....	223,991	Feb. 3	20	7	17	206
Coach-pad.....	E. R. Cahoon.....	232,113	Sept. 14	286	80	18	579
Coach-pad.....	E. R. Cahoon.....	235,506	Dec. 14	557	159	18	1382
Coal and ore breaker.....	P. H. Sharp.....	223,299	Jan. 6	115	29	17	21
Coal and rock drill.....	B. Leonard.....	224,300	Feb. 10	380	107	17	286
Coal, &c. Composition for aiding the ignition of.....	J. M. Child.....	224,649	Feb. 17	788	.....	17	363
Coal-culm for fuel, &c. Preparing.....	C. Detrick.....	223,438	Jan. 13	287	.....	17	65
Coal cutting and mining machine.....	J. Gowland.....	227,354	May 11	317	92	17	1041
Coal, &c., drill.....	W. H. Phelps.....	235,288	Dec. 7	271	76	18	1325

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. li.	Vol.	Page.
Coal-fork.....	T. R. Way.....	234,633	Nov. 16	1008	269	18	1171
Coal-hod.....	C. Holzner and F. Vohringer.....	223,349	Jan. 6	164	43	17	30
Coal-hod.....	W. S. Ray.....	233,697	Oct. 26	1127	314	18	949
Coal-hod.....	W. F. Salisbury.....	232,618	Sept. 28	894	247	18	694
Coal-hod. Hooded.....	H. Symonds.....	228,952	June 15	968	263	17	1392
Coal shovel or scoop.....	C. M. Seguire.....	232,853	Oct. 5	69	20	18	750
Coal-tipple.....	M. O. Curry.....	234,116	Nov. 9	361	100	18	1053
Coal-washing machine.....	S. Diescher.....	233,404	Oct. 19	770	212	18	880
Coal-washing machine.....	A. C. Jordan.....	231,429	Aug. 24	963	271	18	423
Coal-washing machine.....	G. Lander.....	228,465	June 8	360	98	17	1294
Coal-washing machine.....	S. Stutz.....	227,930	May 25	990	284	17	1170
Coal-washing machinery.....	S. Stutz.....	226,940	Apr. 27	952	264	17	936
Coal-hook.....	A. E. Taylor.....	223,963	Jan. 27	926	247	17	187
Coating surfaces. Composition for.....	C. M. Jacob.....	234,675	Nov. 23	1078	.....	18	1189
Cock. Cylinder.....	J. Ryan.....	235,101	Dec. 7	42	13	18	1288
Cock. Cylinder.....	T. L. Smith.....	231,110	Aug. 10	590	167	18	350
Cock for beer and other casks. Two-way.....	P. Krug.....	227,797	May 18	822	232	17	1132
Cock for steam-boilers. Gage.....	G. E. Chenoweth.....	231,008	Aug. 10	479	136	18	331
Cock. Gage.....	E. G. Felthousen.....	224,330	Feb. 10	413	117	17	291
Cock. Gage.....	C. Jenkins.....	232,724	Sept. 28	1015	279	18	714
Cock handles. Covering for steam.....	J. Morrison.....	225,481	Mar. 16	597	173	17	579
Cock. Self-closing.....	M. Hogan.....	232,350	Sept. 21	579	159	18	634
Cock. Stop.....	C. H. Cushing.....	223,486	Jan. 13	347	92	17	74
Cock. Stop.....	C. H. Cushing.....	231,383	Aug. 17	802	225	18	390
Cock. Three-way.....	W. H. Ward.....	230,371	July 20	1014	287	18	181
Cock. Waste.....	W. E. Moran.....	232,050	Sept. 7	209	57	18	559
Cocks. Machinery for grinding.....	J. L. Hayden.....	223,507	Jan. 13	369	98	17	78
Cockeye.....	E. M. Kinne.....	227,904	May 25	963	276	17	1166
Cockeye.....	E. G. Latta.....	232,278	Sept. 14	481	134	18	612
Cockle-mill.....	J. M. King.....	234,290	Nov. 9	569	155	18	1090
Cockle-screen.....	J. B. Cornwall.....	232,242	Sept. 14	442	121	18	605
Cockle-separator.....	F. A. Balch.....	227,471	May 11	448	128	17	1062
Cockle-separator.....	D. Brubaker.....	228,310	June 1	177	50	17	1255
Cockle-separator.....	J. W. Collins.....	235,623	Dec. 21	704	199	18	1413
Coffee and tea pot.....	J. Binkley.....	226,899	Apr. 27	902	251	17	928
Coffee and tea pot. Hydrostatic.....	E. Bazin.....	230,523	July 27	1226	345	18	222
Coffee and tea pot. Steam.....	S. Jones.....	231,586	Aug. 24	1140	319	18	451
Coffee extract.....	D. J. Gue and J. C. Grant.....	229,697	July 6	212	.....	18	39
Coffee-grinding mill.....	J. C. Dell.....	227,742	May 18	765	215	17	1123
Coffee, &c. Machine for cleaning, scouring and polishing.....	G. W. and G. S. Hungerford.....	232,504	Sept. 21	765	212	18	665
Coffee-mill.....	F. Hickman.....	230,279	July 20	911	259	18	164
Coffee or rice mill.....	F. A. Gardner.....	234,019	Nov. 2	242	66	18	1025
Coffee or spice mill.....	O. W. Stow.....	225,243	Mar. 9	310	88	17	523
Coffee-pot.....	V. W. and L. S. Blanchard.....	228,862	June 15	875	239	17	1378
Coffee-pot.....	J. E. Finley.....	224,822	Feb. 24	1008	285	17	414
Coffee-pot.....	T. H. Harrison.....	232,817	Oct. 5	25	7	18	742
Coffee-pot.....	J. F. Henderson.....	227,251	May 4	191	56	17	1009
Coffee-pot.....	C. F. Matthes.....	227,805	May 18	830	234	17	1133
Coffee-pot.....	H. C. Rice.....	229,640	July 6	146	41	18	30
Coffee-pot.....	E. Robinson.....	226,354	Apr. 6	231	68	17	788
Coffee-pot.....	C. B. Veronee.....	226,465	Apr. 13	369	106	17	820
Coffee-pot attachment.....	M. P. Hathaway.....	228,632	June 8	571	151	17	1324
Coffee-pots, &c. Manufacture of.....	G. H. Simmons.....	229,482	June 29	1598	440	17	1497
Coffee. Preparing extract of.....	D. J. Gue and J. C. Grant.....	228,889	June 15	903	.....	17	1382
Coffee pulper and separator.....	E. L. Henington.....	232,714	Sept. 28	1004	277	18	712
Coffee-ripening apparatus.....	J. Bininger.....	232,589	Sept. 28	860	239	18	689
Coffee-roaster.....	M. T. Brown.....	234,952	Nov. 30	1417	381	18	1250
Coffee-roaster.....	J. H. Chamberlin.....	223,993	Feb. 3	22	8	17	206
Coffee-roaster.....	C. L. Cole.....	224,392	Feb. 10	484	139	17	302
Coffee-roaster.....	C. L. Hall.....	231,486	Aug. 24	1022	287	18	433
Coffee-roaster.....	E. N. Jenkins.....	228,076	May 25	1162	331	17	1197
Coffee-roaster.....	W. Langner.....	230,189	July 20	800	226	18	148
Coffee-roaster stirrer.....	R. J. Morton.....	225,758	Mar. 23	930	269	17	646
Coffee scourer and cleaner.....	J. R. Merrihew.....	228,094	May 25	1182	336	17	1201
Coffin.....	J. N. Keefer and W. A. Reynolds.....	233,356	Oct. 19	711	194	18	870
Coffin.....	W. M. Orr.....	235,376	Dec. 14	393	108	18	1354
Coffin-handle.....	G. S. Eaton.....	229,683	July 6	197	54	18	37
Coffin-handle socket.....	C. F. Mosman.....	227,286	May 4	222	66	17	1014
Coffin-handle socket.....	C. F. Mosman.....	227,817	May 18	840	238	17	1135
Coffin-handle tip.....	C. F. Mosman.....	227,285	May 4	222	65	17	1014
Coffin-handle tip.....	C. F. Mosman.....	227,816	May 18	839	237	17	1135
Coffin-pedestal.....	F. R. Taylor.....	236,109	Dec. 28	1301	357	18	1520
Coffins. Apparatus for lowering.....	J. Weidenmann.....	230,682	Aug. 3	102	29	18	263
Coin counter and changer.....	P. Clark.....	232,596	Sept. 28	871	241	18	690
Coin-counting device. Automatic.....	W. C. Morison.....	227,038	Apr. 27	1067	296	17	955
Coin detector. Counterfeit.....	J. A. Thompson.....	224,807	Feb. 24	993	281	17	412
Coin. Device for holding, counting, and delivering.....	P. C. Van Slyke and T. Nesom.....	234,441	Nov. 16	766	206	18	1131
Coin-holder.....	G. C. Hatch.....	224,825	Feb. 24	1010	286	17	415
Coin holding and delivering apparatus.....	A. S. Tyler.....	226,575	Apr. 13	497	140	17	840
Coin holding and delivering device.....	J. O. Hands.....	226,514	Apr. 13	435	122	17	830
Coin-separator.....	J. H. Jnnkin.....	229,712	July 6	232	64	18	42
Coke-oven.....	E. Burns.....	232,389	Sept. 21	628	173	18	643
Coke-oven.....	C. C. Markle and R. H. Smith.....	235,368	Dec. 14	382	105	18	1352
Coke-oven. Bee-hive.....	S. Diescher.....	225,354	Mar. 9	446	130	17	544
Coke-ovens. Gage for building.....	J. W. Miner.....	233,372	Jan. 6	186	49	17	34
Collar.....	J. W. A. Cluett.....	230,109	July 20	710	198	18	134
Collar.....	G. A. Goldsmith and A. K. Merrill.....	228,059	May 25	1142	325	17	1194
Collar.....	A. N. Luchs.....	227,173	May 4	98	27	17	994
Collar and cuff.....	G. K. Snow.....	228,568	June 8	403	132	17	1313
Collar and cuff blanks. Machine for folding.....	J. K. P. Pine.....	232,296	Sept. 14	501	139	18	616

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Collar and cuff folding machine.....	M. Hermann.....	234,571	Nov. 16	926	248	18	1157
Collar and hame fastener.....	M. T. Hayes.....	227,431	May 11	402	117	17	1054
Collar, cuff, and front. Celluloid and other imitation.....	H. B. Fox.....	234,665	Nov. 23	1063	286	18	1187
Collar fastening. Horse.....	S. J. Bowers.....	232,590	Sept. 28	863	239	18	689
Collar fastening. Horse.....	G. W. Decker.....	233,402	Oct. 19	769	211	18	880
Collar fastening. Horse.....	E. Fisher and J. Watson.....	230,261	July 20	893	253	18	161
Collar frames. Die for forging metallic horse.....	E. Fisher and J. Watson.....	226,737	Apr. 20	700	195	17	884
Collar. Horse.....	E. Fisher and J. Watson.....	224,671	Feb. 17	814	230	17	368
Collar. Horse.....	J. B. Hampton.....	233,929	Nov. 2	116	32	18	1006
Collar. Horse.....	T. Hepburn.....	228,351	June 1	216	61	17	1262
Collar. Horse.....	E. D. Pinney and G. W. Daily.....	235,567	Dec. 14	630	180	18	1395
Collar. Horse.....	F. C. Scott.....	228,945	June 15	963	262	17	1391
Collar. Horse.....	M. Turley.....	225,200	Mar. 2	248	69	17	459
Collar pad. Harness.....	D. Curtis.....	230,926	Aug. 10	389	112	18	318
Collar pad. Horse.....	W. K. Snyder.....	226,887	Apr. 27	890	247	17	926
Collar pad. Horse.....	J. F. Walsh.....	232,219	Sept. 14	410	114	18	600
Collar. Standing.....	G. A. Goldsmith and A. K. Merrill.....	225,699	Mar. 23	859	250	17	635
Collar stay-fastening. Breast.....	C. A. Hamstead.....	233,093	Oct. 12	370	102	18	805
Collar sweat-pad. Horse.....	E. R. Jones.....	231,326	Aug. 17	848	238	18	398
Collars and cuffs. Method of and apparatus for turning.....	I. P. Turner.....	236,118	Dec. 28	1315	362	18	1522
Collars. Machine for moistening the fold-lines of.....	T. S. Wiles.....	234,156	Nov. 9	403	109	18	1060
Coloring-matter. Artificial.....	F. Z. Roussin.....	225,908	Mar. 23	1089	.....	17	672
Coloring-matter obtained from alpha-naphthol.....	H. Caro.....	225,108	Mar. 2	149	.....	17	482
Coloring-matter. Red.....	H. Baum.....	233,465	Oct. 19	841	.....	18	892
Colter.....	J. Clayton.....	229,381	June 29	1477	406	17	1480
Colter.....	K. W. Manwaring.....	227,373	May 11	341	99	17	1044
Colter.....	G. G. Nott.....	233,793	Oct. 26	1233	343	18	968
Colter and jointer. Combined.....	A. C. Schram.....	232,370	Sept. 21	605	166	18	639
Colter attachment.....	K. W. Manwaring.....	231,074	Aug. 10	547	155	18	343
Colter. Plow.....	S. Huber.....	226,316	Apr. 6	192	56	17	781
Colter. Rolling.....	L. Chapman.....	225,743	Mar. 23	906	263	17	642
Colter. Rotary.....	A. J. Manny.....	230,883	Aug. 10	345	99	18	311
Colters. Machine for flattening and sharpening plow.....	J. T. Duff.....	234,006	Nov. 2	230	61	18	1023
Column. Iron.....	W. J. Fryer, Jr.....	224,775	Feb. 24	952	271	17	406
Columns. Combined capital and base for metallic.....	J. Johnson.....	225,060	Mar. 2	100	28	17	473
Columns. Fireproofing iron.....	C. Mettam.....	230,316	July 20	947	269	18	170
Comb:							
See Curry-comb. High-back comb.							
Doffer-comb.							
Comb.....	H. Dawn.....	235,344	Dec. 14	357	98	18	1348
Comb and shield. Combined.....	J. S. Upton.....	226,374	Apr. 6	248	73	17	791
Comb-frame tongs.....	A. Hansen.....	225,519	Mar. 16	642	187	17	587
Comb-handle.....	N. B. Slayton.....	230,443	July 27	1143	321	18	208
Comb-teeth. Machine for cutting and finishing.....	T. Schnitzlein.....	235,461	Dec. 14	503	145	18	1373
Combs from celluloid, &c. Manufacture of.....	W. Booth.....	223,311	Jan. 6	125	32	17	23
Combs, &c., of horn and shell. Construction of.....	H. P. Prevear.....	235,571	Dec. 14	635	181	18	1395
Combing fibrous substances. Machinery for.....	P. H. Ducommun and C. V. Steinlen.....	224,428	Feb. 10	523	149 150 151 152	17	309
Combing machinery.....	G. Little and T. C. Eastwood.....	226,332	Apr. 6	206	61	17	783
Combustion. Promoting.....	B. F. Sherman.....	226,120	Mar. 30	1365	384	17	729
Commode.....	A. Climie.....	228,313	June 1	181	51	17	1256
Commode.....	J. Finsterer.....	226,296	Apr. 6	172	49	17	777
Commode.....	G. K. Heist.....	231,040	Aug. 10	515	145	18	337
Commode.....	P. Shinkle.....	225,649	Mar. 16	784	230	17	613
Commode.....	W. J. Winghart.....	226,011	Mar. 30	1241	351	17	709
Commode.....	J. B. Wortham.....	225,089	Mar. 2	132	38	17	479
Commode. Folding.....	G. C. Bovey.....	234,230	Nov. 9	498	137	18	1078
Commode. Portable.....	W. S. G. Baker.....	223,574	Jan. 13	451	122	17	91
Commodities, &c. Cover for.....	H. P. Stichter.....	233,890	Nov. 2	74	19	18	999
Compass-adjusting binnacle.....	J. E. Hand.....	226,659	Apr. 20	619	173	17	871
Compass-box.....	T. F. Randolph.....	234,331	Nov. 9	613	167	18	1097
Compass. Mariner's.....	A. Gareis.....	227,972	May 25	1047	298	17	1179
Compass. Mariner's.....	W. Thomson.....	232,781	Sept. 28	1089	298 299	18	727
Compass. Recording ship's.....	F. Alsing.....	230,215	July 20	831	235	18	153
Compass. Solar.....	F. Moore.....	224,102	Feb. 3	133	43, 44	17	229
Compasses. Dividing.....	J. D. Little.....	229,619	July 6	125	34	18	27
Compasses. Telescope attachment to surveyors'.....	T. F. Randolph.....	234,332	Nov. 9	614	167	18	1097
Composition of matter.....	J. L. Pope.....	226,547	Apr. 13	470	132	17	836
Compound engine.....	M. B. Harvey.....	227,772	May 18	794	224 225	17	1123
Compound engine.....	J. F. Holloway.....	224,779	Feb. 24	957	272 273	17	407
Compound engine.....	K. W. Jurisch, J. H. Lewis, W. R. Proell, and C. J. Scharowsky.....	226,405	Apr. 13	297	86	17	809
Compound engine.....	L. Perkins.....	226,416	Apr. 13	307	89, 90	17	511
Compound engine for canal-steamers.....	H. H. Burritt.....	230,737	Aug. 3	162	48	18	273
Compound engines. Reheater for.....	E. D. Leavitt, Jr.....	231,060	Aug. 10	535	150 151	18	340
Compound engines. Reheater for.....	E. D. Leavitt, Jr.....	231,061	Aug. 10	537	151	18	341
Condenser.....	C. B. Lee.....	228,909	June 15	925	252	17	1385
Condenser.....	P. Murray.....	234,140	Nov. 9	384	106	18	1057
Condenser and feed-heater.....	G. H. Corliss.....	235,746	Dec. 21	845	236	18	1437
Condenser for alcohol-stills.....	J. R. Gladney.....	224,421	Feb. 10	516	147	17	307
Condenser for steam-escapes.....	J. L. Alberger and T. Sault.....	227,342	May 11	303	89	17	1039
Condenser tube. Surface.....	H. Seo.....	231,501	Aug. 24	1040	292	18	436
Condenser tube. Surface.....	C. B. White.....	227,142	May 4	68	19	17	989
Condiment compound.....	G. Holland.....	228,898	June 15	913	.....	17	1324
Confectioners' forms and their application.....	W. E. H. Sommer.....	234,623	Nov. 16	297	265	18	1169
Confections. Hygienic oatmeal.....	T. S. Lambert and J. S. Huyler.....	234,298	Nov. 9	579	.....	18	1092
Converter.....	J. O. Stanton and C. F. Manness.....	233,571	Oct. 19	964	266	18	913

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & Co.	Vol.	Page.
Converter-bottom.....	T. and S. McDonald.....	230,142	July 20	747	208	18	139
Convertible chair.....	C. A. Eastman.....	226,729	Apr. 20	690	192	17	883
Convertible chair.....	W. H. Jay.....	233,352	Oct. 19	707	193	18	869
Conveyer-box.....	H. W. Caldwell.....	233,324	Oct. 19	673	185	18	864
Conveyer-flights. Machine for making.....	E. E. Blinn.....	231,892	Sept. 7	18	4	18	527
Cooker and drier. Steam feed.....	T. E. Daniels.....	225,511	Mar. 16	633	185	17	585
Cooker and drier. Steam feed.....	T. E. Daniels.....	235,343	Dec. 14	355	97, 98	18	1348
Cooker. Feed.....	M. B. Mills and C. B. Rice.....	232,101	Sept. 7	264	73	18	567
Cooker. Steam.....	W. G. Flanders.....	225,584	Mar. 16	711	209	17	600
Cooker. Steam.....	W. G. Flanders.....	234,865	Nov. 30	1308	353	18	1233
Cooker. Steam.....	E. Gallaher.....	232,701	Sept. 23	990	272	18	710
Cooker. Steam.....	J. Lidstone.....	233,261	Oct. 12	570	158	18	840
Cooker. Steam.....	I. B. Olmsted.....	231,606	Aug. 24	1161	325	18	454
Cooker. Steam.....	W. B. Wood.....	225,905	Mar. 23	1087	310	17	672
Cooking and drying food and grain. Machine for.....	H. F. Brinton.....	230,525	July 27	1228	346	18	223
Cooking and heating apparatus.....	H. A. Farnam.....	231,025	Aug. 10	501	141	18	335
Cooking apparatus.....	D. M. Small.....	228,482	June 8	389	108	17	1298
Cooking apparatus and dinner-pail.....	J. Haptonstall and S. Banks.....	224,425	Feb. 10	519	148	17	308
Cooking apparatus. Steam.....	J. Ashcroft.....	225,317	Mar. 9	405	118	17	537
Cooking apparatus. Steam.....	E. Fox.....	224,672	Feb. 17	816	231	17	368
Cooking apparatus. Steam.....	S. Silsbee.....	235,388	Dec. 14	405	114	18	1357
Cooking-can and dinner-pail. Combined.....	J. B. Haskell.....	230,274	July 20	907	258	18	164
Cooking device.....	R. B. Wakefield.....	224,252	Feb. 3	315	91	17	255
Cooking fruit. Boiler for.....	J. A. Taylor.....	232,154	Sept. 14	325	92	18	555
Cooking utensil.....	J. M. Webb.....	225,188	Mar. 2	231	65	17	496
Cooking utensil. Steam.....	J. Ashcroft.....	223,267	Jan. 6	72	18	17	15
Cooking-vessel.....	J. R. Noble.....	229,450	June 29	1552	427	17	1491
Cooking-vessel.....	W. Y. Thomson.....	225,246	Mar. 9	313	89	17	523
Cooking-vessel.....	T. R. Timby.....	224,492	Feb. 10	594	171	17	321
Cooking-vessel.....	H. C. White.....	233,054	Oct. 5	310	86	18	739
Cooler:							
See Beer-cooler. Liquid-cooler.							
Butter-cooler. Milk-cooler.							
Horse-foot cooler. Milk and cream cooler.							
Lard-cooler. Water-cooler.							
Cooling, disinfecting, perfuming, &c. Apparatus for.....	G. Praetorius.....	235,960	Dec. 28	1127	311	18	1491
Coop. Folding shipping.....	W. Adair.....	230,388	July 27	1068	301	18	197
Cop-tube.....	A. Ball.....	235,196	Dec. 7	161	46	18	1309
Copies of writings. Apparatus for producing.....	A. J. Underhill.....	231,122	Aug. 10	604	171	18	352
Copies of writings. Producing multiple.....	E. Holtzmann.....	227,629	May 18	626	.....	17	1103
Copies. Making hectograph.....	G. A. McLane.....	233,684	Oct. 26	1112	309	18	947
Copper for making cast hollow cylinders and other castings. Treating molten.....	S. Walker.....	230,369	July 20	1011	.....	18	181
Copper from ores. Extracting.....	T. S. Hunt and J. Douglas, Jr.....	227,902	May 25	960	.....	17	1166
Copper ores. Treating.....	C. T. Du Motay.....	234,212	Nov. 9	479	{ 130 } 131	18	1075
Copy-holder.....	A. Iske.....	225,386	Mar. 9	479	139	17	549
Copy-holder.....	J. Lav.....	229,001	June 22	1047	285	17	1411
Copy-holder.....	E. Neder.....	227,043	Apr. 27	1080	298	17	956
Copy-holder.....	J. S. B. Patterson.....	229,453	June 29	1555	428	17	1491
Copying apparatus.....	H. Van Hoevenbergh.....	232,425	Sept. 21	673	186	18	650
Copying-pad.....	M. Alisoff.....	231,517	Aug. 24	1059	297	18	439
Copying-press.....	B. B. Hill.....	227,976	May 25	1052	299	17	1180
Copying-press.....	J. S. Sammons.....	235,966	Dec. 28	1135	314	18	1493
Copying process. Dry.....	V. Kwaysser and R. Husak.....	228,362	June 1	927	64	17	1264
Copying process. Dry.....	W. H. Spencer.....	234,927	Nov. 30	1382	.....	18	1245
Cord-making machine.....	C. E. Barnes.....	232,920	Oct. 5	151	40, 41	18	763
Cordage-making machine.....	J. Hall.....	226,309	Apr. 6	185	54	17	780
Cordage-making machine.....	G. K. Winchester.....	227,940	May 25	999	287	17	1172
Cord-box.....	J. Forbes.....	234,263	Nov. 9	538	147	18	1084
Cork-cutting machine.....	F. L. Blair.....	227,876	May 25	929	266	17	1161
Cork-cutting machine.....	F. L. Blair.....	228,439	June 8	330	90	17	1289
Cork-cutting machine.....	A. and A. Goetzinger.....	229,818	July 13	368	102	18	70
Cork-grinding machine.....	F. Latta.....	231,591	Aug. 24	1145	320	18	452
Cork-protector and measuring device for bottles. Combined.....	C. T. Pearson.....	232,144	Sept. 14	315	89	18	584
Cork-tapering machine.....	F. L. Blair.....	228,169	June 1	10	4	17	1228
Corks. Device for compressing.....	T. B. Comins, Jr.....	229,960	July 13	524	145	18	95
Corkscrew.....	J. Kossuth.....	230,877	Aug. 10	338	98	18	310
Corn and cotton scraper and cultivator. Broom.....	W. L. Dietz.....	224,402	Feb. 10	495	142	17	304
Corn and phosphates. Machine for dropping.....	M. Humphrey.....	227,359	May 11	324	94, 95	17	1042
Corn cutter. Green.....	W. H. Kanne.....	235,253	Dec. 7	229	62	18	1319
Corn cutting and grinding mill.....	J. O. Grisham.....	230,547	July 27	1255	354	18	928
Corn. Device for preserving seed.....	M. F. Smith.....	229,015	June 22	1061	289	17	1414
Corn-drill.....	R. L. Benedict.....	225,095	Mar. 2	138	39	17	450
Corn-dropper. Rotary.....	J. Selby.....	224,613	Feb. 17	750	212	17	357
Corn-husker.....	W. L. Farwell.....	224,588	Feb. 17	721	205	17	352
Corn-husker.....	W. B. Farwell.....	230,183	July 20	793	224	18	147
Corn-husking and shuck-making machine.....	J. L. L. Knox.....	235,364	Dec. 14	377	104	18	1352
Corn-husking machine.....	F. L. Collis.....	228,174	June 1	16	5	17	1229
Corn-husking machine.....	F. Rose.....	225,026	Mar. 2	51	15	17	465
Corn-husking machine roller.....	E. A. Bourquin.....	228,305	June 1	173	43	17	1254
Corn-husking roller.....	T. C. Elliott.....	234,120	Nov. 9	366	101	18	1054
Corn-husks. Apparatus for cutting.....	W. A. Wright.....	234,640	Nov. 16	1019	273	18	1173
Corn-husks. Disintegrating.....	W. A. Wright.....	234,641	Nov. 16	1020	.....	18	1173
Corn. Implement for shocking.....	W. C. Tolles.....	226,007	Mar. 30	1237	349	17	708
Corn. Machine for making food from hulled.....	W. S. Fickett.....	233,085	Oct. 12	355	97	18	803
Corn. Machine for picking and husking.....	W. Spear.....	235,038	Nov. 30	1518	{ 400 } 410	18	1263
Corn-popper.....	J. M. Harper.....	229,123	June 22	1174	322	17	1430
Corn-popper.....	D. Lumbert.....	228,205	June 1	48	15	17	1235
Corn-sheller.....	H. W. Cornell.....	233,733	Oct. 26	1167	324	18	956
Corn-sheller.....	B. A. Kamp.....	228,078	May 25	1163	331	17	1198
Corn-sheller.....	W. S. Reeder.....	224,609	Feb. 17	744	211	17	356



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Corn-sheller.....	M. F. Remington.....	232,904	Oct. 5	131	34	18	760
Corn-sheller.....	J. W. Ricker.....	226,627	Apr. 20	585	163	17	806
					164		
Corn-sheller.....	J. S. Waterman.....	233,649	Oct. 26	1076	299	18	941
Corn-sheller.....	C. E. Whitman.....	233,053	Oct. 5	310	86	18	789
Corn-sheller.....	I. A. Wilson.....	231,132	Aug. 10	615	174	18	354
Corn-sheller.....	J. L. Woods.....	234,831	Nov. 23	1264	339	18	1219
Corn sheller and cleaner.....	N. Stedman.....	227,453	May 11	423	123	17	1057
Corn-sheller separator.....	R. H. Sheldon, Jr.....	224,850	Feb. 24	1040	296	17	420
					297		
Corn-shellers. Beater for.....	C. C. Burroughs.....	233,066	Oct. 12	335	93	18	800
Corn-shellers, &c. Feeder for.....	M. Kidnecker.....	234,292	Nov. 9	572	156	18	1090
Cornstalk-cutter.....	E. Deminy.....	229,106	June 22	1155	316	17	1427
					317		
Cornstalk-cutter.....	S. L. Long.....	230,426	July 27	1118	314	18	204
Corner-stone for boundary-lines.....	J. C. Isaac.....	232,972	Oct. 5	215	58	18	773
Cornice. Adjustable.....	W. W. Stratton and A. Steuerwald.....	234,344	Nov. 9	627	171	18	1099
Cornice. Adjustable window.....	W. W. Bolles.....	223,699	Jan. 20	600	160	17	124
Cornice. Adjustable window.....	J. W. Campbell.....	225,339	Mar. 9	431	125	17	541
Cornice. Adjustable window.....	S. R. Scottron.....	234,732	Feb. 17	874	249	17	378
Cornice-bracket.....	H. L. Judd.....	232,644	Sept. 28	924	254	18	699
Cornice. Curtain.....	H. H. Winger.....	227,466	May 11	442	127	17	1061
Cornice. Extension.....	G. W. Ferguson.....	232,479	Sept. 21	735	204	18	660
Cornice. Extension.....	M. Murphey.....	232,838	Oct. 5	54	16	18	747
Cornice-book.....	J. Day.....	229,873	July 13	430	119	18	80
Cornice. Window.....	J. W. Campbell.....	235,412	Dec. 14	433	122	18	1362
Cornice. Window.....	H. F. Gray.....	228,189	June 1	35	11	17	1233
Cornice. Window.....	J. Herrmann.....	236,028	Dec. 28	1203	332	18	1504
Cornice. Window.....	B. W. Kerfoot.....	226,406	Apr. 13	299	86	17	810
Cornice. Window.....	M. Murphey.....	224,466	Feb. 10	567	163	17	316
Cornice. Window.....	J. R. Shackleton.....	225,877	Mar. 23	1061	303	17	668
Corpse cooling-board.....	R. Gregg, N. T. Shaw, and W. Felton.....	234,980	Nov. 30	1452	390	18	1256
Corpse-lifter.....	E. B. Carter.....	230,467	July 27	1167	330	18	213
Corpse-preserver.....	J. H. Forshay.....	235,863	Dec. 28	1003	278	18	1472
Corset.....	C. F. Allen.....	230,163	July 20	772	215	18	143
Corset.....	C. F. Allen.....	234,380	Nov. 16	697	187	18	1119
Corset.....	T. C. Bates.....	235,928	Dec. 28	1089	301	18	1485
Corset.....	E. W. Bigelow.....	228,725	June 15	705	194	17	1355
Corset.....	I. W. Birdseye.....	226,268	Apr. 6	136	38	17	770
Corset.....	I. W. Birdseye.....	233,467	Oct. 19	844	232	18	892
Corset.....	I. W. Birdseye.....	235,727	Dec. 21	824	231	18	1433
Corset.....	M. K. Bortree.....	230,462	July 27	1163	328	18	212
Corset.....	L. S. Bortree.....	235,989	Dec. 28	1160	322	18	1497
Corset.....	J. Bowers.....	227,211	May 4	147	43	17	1001
Corset.....	M. P. Bray.....	229,801	July 13	348	97	18	68
Corset.....	M. P. Bray.....	231,895	Sept. 7	21	5	18	528
Corset.....	M. Cohn.....	224,076	Feb. 3	126	36	17	224
Corset.....	M. I. Cooley.....	231,654	Aug. 31	1226	345	18	472
Corset.....	C. Daniels.....	226,286	Apr. 6	155	44	17	774
Corset.....	A. Fellheimer.....	235,221	Dec. 7	197	54	18	1313
Corset.....	S. B. Ferris.....	231,414	Aug. 24	944	267	18	421
Corset.....	C. W. Foster.....	229,598	July 6	105	28	18	24
Corset.....	M. W. Henius.....	223,346	Jan. 6	161	42	17	29
Corset.....	D. Mamlok and A. T. Drewes.....	232,524	Sept. 21	786	218	18	669
Corset.....	W. J. Miller.....	233,001	Oct. 5	243	67	18	778
Corset.....	W. A. Nettleton.....	235,697	Dec. 21	788	222	18	1428
Corset.....	I. Newman.....	236,069	Dec. 28	1252	345	18	1512
Corset.....	C. L. Olmstead.....	230,806	Aug. 3	239	69	18	286
Corset.....	J. C. Tallman.....	226,805	Apr. 20	771	215	17	896
Corset.....	J. C. Tallman.....	226,866	Apr. 20	772	215	17	896
Corset.....	C. Young.....	235,112	Dec. 7	58	17, 18	18	1290
Corset. Abdominal.....	S. A. Cunningham.....	225,211	Mar. 9	271	78	17	516
Corset and shoulder-brace. Combined.....	J. C. Schnoter.....	226,885	Apr. 27	888	247	17	926
Corset-clasp.....	M. D. Chipley.....	231,700	Aug. 31	1277	359	18	479
Corset-clasp.....	D. Essex.....	235,144	Dec. 7	100	29	18	1298
Corset-clasp.....	T. Franz.....	224,413	Feb. 10	507	145	17	306
Corset-clasp.....	T. Franz and H. Janssen.....	227,513	May 11	492	141	17	1070
Corset-clasp.....	O. C. Haskell.....	225,520	Mar. 16	642	187	17	587
Corset-clasp.....	P. Laffin.....	229,617	July 6	124	34	18	27
Corset-clasp.....	J. J. Mahoney.....	234,306	Nov. 9	587	160	18	1093
Corset-clasp.....	W. McCabe.....	225,849	Mar. 23	1025	295	17	662
Corset-cover.....	D. L. Engel.....	232,477	Sept. 21	733	204	18	660
Corset parts. Folding-guide for.....	J. S. Crotty.....	235,671	Dec. 21	755	214	18	1422
Corset parts. Machine for folding.....	M. P. Bray.....	231,896	Sept. 7	22	5	18	528
Corset parts. Machine for folding.....	A. B. Curtis.....	224,885	Feb. 24	1077	308	17	426
Corset parts. Machine for folding.....	A. B. Curtis.....	225,574	Mar. 16	701	206	17	598
Corset parts. Machine for folding.....	A. B. Curtis.....	231,901	Sept. 7	28	6	18	529
Corset-spring.....	A. Benjamin.....	223,214	Jan. 6	6	2	17	3
Corset-spring.....	M. K. Bortree.....	231,472	Aug. 24	1007	283	18	431
Corset-stay.....	M. P. Bray.....	231,894	Sept. 7	21	4	18	528
Corset-steel.....	A. Bluntach.....	232,876	Oct. 5	100	27	18	754
Corset-steel fastening.....	L. Hill.....	225,375	Mar. 9	468	137	17	548
Corset-stiffener.....	I. D. Warner and J. C. Tallman.....	234,757	Nov. 23	1166	314	18	1203
Corsets. Finishing.....	J. Waterman.....	226,375	Apr. 6	249	73	17	791
Corsets. Manufacture of.....	A. D. Laws.....	227,273	May 4	210	61	17	1012
Cot.....	R. Stilwell.....	223,551	Jan. 13	418	112	17	86
Cot. Folding.....	R. E. Avery.....	235,977	Dec. 28	1146	317	18	1495
Cot. Folding.....	C. J. Skaff.....	232,418	Sept. 21	664	183	18	648
Cot. Folding.....	T. W. B. Murray and C. J. Baker.....	228,775	June 15	768	210	17	1364
Cot. Folding.....	T. W. B. Murray and C. J. Baker.....	228,920	June 15	937	255	17	1387
Cot. Folding.....	B. Van Dyke.....	229,501	June 29	1616	445	17	1499
Cotton and hay press.....	B. H. Tyson.....	233,447	Oct. 19	821	226	18	888
Cotton-chopper.....	B. S. Allen.....	234,219	Nov. 9	487	133	18	1076
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Cotton-chopper .....	W. Busch .....	227,879	May 25	934	268	17	1162
Cotton-chopper .....	J. B. Carson .....	224,645	Feb. 17	781	222	17	362
Cotton-chopper .....	W. G. Patton .....	231,083	Aug. 10	562	158	18	345
Cotton-chopper .....	J. T. Sustaite .....	225,890	Mar. 23	1072	306	17	670
Cotton-chopper .....	J. Warren .....	227,864	May 18	892	254	17	1144
Cotton-chopper and cultivator .....	C. C. and A. G. Davis .....	223,488	Jan. 13	348	93	17	74
Cotton-chopper and cultivator .....	J. B. Nichols .....	225,856	Mar. 23	1033	297	17	663
Cotton-chopper and cultivator. Combined .....	W. S. Neal .....	225,411	Mar. 9	509	147	17	554
Cotton-chopper. Rotary .....	J. C. Lee .....	228,653	June 8	593	158	17	1328
Cotton-chopper. Spiral .....	J. G. Rawls .....	233,546	Oct. 19	935	{ 257 258 }	18	908
Cotton cleaner and condenser .....	G. Winship .....	232,096	Sept. 7	260	72	18	567
Cotton-condenser .....	F. H. Lummus .....	232,736	Sept. 28	1028	232	18	716
Cotton. Device for handling and shipping .....	C. H. Merry .....	230,144	July 20	750	{ 209 210 }	18	140
Cotton-gin .....	W. L. Ellis .....	223,721	Jan. 20	620	166	17	128
Cotton-gin .....	C. F. Scattergood .....	227,063	Apr. 27	1103	304	17	959
Cotton-gin .....	W. O. Watson .....	235,185	Dec. 7	145	42	18	1306
Cotton-gin carding attachment .....	J. Wright .....	233,313	Oct. 12	635	{ 175 176 }	18	851
Cotton-gin condenser .....	O. E. and O. W. Massey .....	233,785	Oct. 26	1221	340	18	966
Cotton-gin feeder .....	W. L. Crowson .....	235,414	Dec. 14	435	{ 122 123 }	18	1362
Cotton-opener beater .....	R. Kitson .....	229,615	July 6	123	33	18	27
Cotton-openerfeed-indicator .....	J. Hill .....	224,185	Feb. 3	246	71	17	244
Cotton-picker .....	T. P. Moores .....	228,101	May 25	1189	338	17	1202
Cotton-picker .....	J. B. Parker .....	224,221	Feb. 3	284	82	17	250
Cotton-picker .....	G. Risler .....	234,613	Nov. 16	985	262	18	1167
Cotton-picking machine .....	G. Beekman .....	227,949	May 25	1016	291	17	1174
Cotton-picking shade .....	J. C. Benthall .....	223,468	Jan. 13	320	86	17	70
Cotton. Preparing absorbent .....	L. A. Buckman .....	227,480	May 11	458	.....	17	1064
Cotton-press .....	A. A. Janney .....	227,013	Apr. 27	1037	288	17	950
Cotton-press .....	E. Mercer .....	235,272	Dec. 7	254	70, 71	18	1323
Cotton-press .....	W. B. Padgett .....	231,926	Sept. 7	55	13, 14	18	533
Cotton-press .....	N. Stedman .....	235,390	Dec. 14	408	115	18	1357
Cotton-press .....	S. Stucky .....	234,626	Nov. 16	1000	266	18	1170
Cotton-press .....	A. Temples .....	226,132	Mar. 30	1378	{ 388 389 }	17	731
Cotton-press .....	B. H. Tyson .....	230,449	July 27	1148	323	18	209
Cotton-presses. Band-tightener for .....	J. L. Sheppard .....	227,590	May 11	577	{ 165 166 }	17	1083
Cotton. Process of and apparatus for separating trash from seed .....	W. P. Groom .....	233,847	Nov. 2	26	7	18	991
Cotton-scraper .....	H. L. Lyon .....	227,802	May 18	826	233	17	1133
Cotton-scraper and chopper. Combined .....	L. D. Bowman .....	226,703	Apr. 20	664	185	17	878
Cotton. Treating seed .....	W. P. Groom .....	227,767	May 18	789	.....	17	1127
Counter and heel protector .....	J. A. Cole .....	231,764	Aug. 31	1352	380	18	491
Counter and heel protector .....	A. A. Norman .....	225,070	Mar. 2	112	31	17	475
Counter and mat. Bar .....	C. P. Groat and W. E. Burk .....	234,028	Nov. 2	252	68	18	1027
Counter-stiffeners. Machine for shaping .....	L. Coté .....	223,436	Jan. 13	283	75	17	61
Counter-stiffeners. Machinery for shaping .....	G. L. Roth .....	225,875	Mar. 23	1059	302	17	667
Countersink .....	D. F. Barber .....	230,603	Aug. 3	6	2	18	248
Counting-register .....	J. T. Hawkins .....	227,975	May 25	1050	299	17	1179
Coupling:							
See Axle-coupling. Shaft and tumbling-rod coupling.							
Brake-pipe coupling.	Spring-coupling.						
Car-coupling. Steam-supply-pipe coupling.							
Car-brake coupling.	T-coupling.						
Hose-coupling.	Thill-coupling.						
Lightning-rod coupling.	Tongue-coupling.						
Pipe-coupling.	Tube-coupling.						
Shaft-coupling.	Wagon-reach coupling.						
Coupling .....	W. J. Innis .....	232,722	Sept. 28	1014	279	18	714
Cover for vessels .....	W. E. Andrew .....	234,842	Nov. 30	1286	345	18	1229
Coverings and joint-packings. Compound for .....	I. R. Blumenberg .....	230,996	Aug. 10	467	.....	18	329
Cracker-machine cutter .....	G. J. Hill .....	230,480	July 27	1183	333	18	215
Cracker-packing machine .....	W. S. Hayward .....	233,245	Oct. 12	551	153	18	837
Cradle .....	R. S. Marshall .....	234,311	Nov. 9	592	161	18	1093
Cradle and carriage. Combined .....	G. F. Doyle .....	234,547	Nov. 16	892	239	18	1152
Cradle and carriage. Combined .....	H. S. Pruyn .....	226,458	Apr. 13	362	104	17	819
Cradle. Grain .....	E. H. Scott .....	226,630	Apr. 20	588	164	17	866
Cradle. Rocking .....	J. W. Mucks .....	225,233	Mar. 9	298	85	17	520
Crane. Center .....	T. Wrightson .....	234,160	Nov. 9	408	111	18	1061
Crane for loading vessels .....	J. W. Alexander .....	224,505	Feb. 17	615	179	17	335
Crank and wheel for machinery. Combined .....	H. Young .....	225,454	Mar. 9	554	160	17	562
Crank attachment .....	F. F. Adams .....	234,841	Nov. 30	1285	345	18	1229
Crank. Compound .....	J. S. Schoonover .....	235,026	Nov. 30	1506	405	18	1266
Crank-movements. Apparatus for overcoming the dead-point in .....	P. E. Jay .....	234,406	Nov. 16	728	196	18	1124
Crank-pin .....	D. A. Woodbury .....	230,098	July 13	673	188	18	119
Cranks. Apparatus for overcoming dead-points in .....	P. E. Jay .....	235,876	Dec. 28	1018	232	18	1474
Cranks. Device for overcoming the dead-points of .....	C. L. Fleischmann .....	228,185	June 1	26	8, 9	17	1231
Cranks. Substitute for .....	S. W. Hanson .....	229,700	July 6	215	58	18	39
Crate:							
See Fruit-basket crate. Return-crate.							
Crate .....	G. E. Bender .....	225,551	Mar. 16	678	198	17	594
Crayon compound .....	N. Ullman and M. D. Stiles .....	223,869	Jan. 27	816	.....	17	169
Crayon-sharpener .....	J. Suter .....	225,732	Mar. 23	895	260	17	641
Cream-raising apparatus .....	A. V. Sanford .....	226,205	Apr. 6	68	17, 18	17	758
Creamer .....	S. S. Weldon .....	225,672	Mar. 16	811	237	17	617
Creaming-can .....	C. L. Betts .....	232,927	Oct. 5	158	42	18	764

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly Gazette.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Creasing and embossing tool. Combined.	R. Young.	224,759	Feb. 17	900	258	17	383
Crib. Child's.	F. H. Brown.	228,596	June 8	531	141	17	1319
Crimping-machine.	J. W. D. Fifield.	229,989	July 13	556	155	18	100
Crimping-machine.	C. Stoddard and J. W. D. Fifield.	225,434	Mar. 9	532	153	17	558
Crimping-pin.	C. D. Thompson.	234,629	Nov. 16	1004	268	18	1171
Crochet-needle.	E. P. Haff.	229,402	June 29	1500	413	17	1483
Crochet-needles. Manufacture of.	J. A. Smith.	228,404	June 1	272	76	17	1271
Crockery. Device for exhibiting.	E. J. Ovington, Jr.	223,239	Jan. 6	37	9	17	9
Croquet-wickets. Socket for.	C. Pease.	234,924	Nov. 30	1380	371	18	1245
Crossing-frog.	A. R. Roberts.	234,809	Nov. 23	1238	333	18	1214
Crown-sheet attachment.	J. N. Weaver.	227,336	May 4	279	81, 82	17	1023
Crown-sheet support.	J. E. Jerrold.	232,824	Oct. 5	37	10	18	744
Crucible.	J. Pedder.	230,050	July 13	623	174	18	110
Crucible-furnace.	J. Bergmann.	226,828	Apr. 27	813	227	17	914
Crucible-furnace.	G. Fischer.	228,049	May 25	1127	321	17	1192
Crucible-furnace burner.	G. B. Snow and I. M. Seamans.	227,852	May 18	878	250	17	1141
Crucible-furnaces. Hydrocarbon-burner for.	I. M. Seamans.	228,281	June 1	149	42	17	1250
Crusher:							
<i>See</i> Fruit-crusher.	Stone-crusher.						
Ore-crusher.	Vegetable-crusher.						
Rock-crusher.							
Crushing, grinding, and amalgamating machine.	L. Haight.	224,087	Feb. 3	138	30	17	226
Crushing-mills. Ore-feeder for.	J. O. Mortz.	229,903	July 13	459	127	18	85
Crutch-top. Celluloid.	J. Whittemore.	233,824	Oct. 26	1274	357	18	975
Cuff.	C. H. Denison.	234,856	Nov. 30	1299	350	18	1231
Cuff.	S. W. Wilson.	234,361	Nov. 9	647	176	18	1103
Cuff-fastener.	G. C. Bacon.	223,268	Jan. 6	73	18	17	15
Cuff fastener and supporter.	A. B. Case.	234,533	Nov. 16	871	232	18	1148
Cuff-holder.	E. W. Wickersham.	234,100	Nov. 2	327	90	18	1041
Cuff-shaping machine.	J. K. P. Pine.	224,794	Feb. 24	982	278	17	410
Cuff-supporter.	F. V. Libby.	229,324	June 29	1410	386	17	1471
Culinary apparatus.	F. T. Hotine.	234,711	Nov. 23	1115	301	18	1195
Culinary vessel.	F. Schifferle.	230,201	July 20	815	231	18	150
Cultivator.	A. Aker.	225,264	Mar. 9	327	96	17	526
Cultivator.	J. H. Bailey.	232,871	Oct. 5	96	26	18	754
Cultivator.	S. R. Bell.	235,986	Dec. 28	1156	321	18	1497
Cultivator.	W. W. Blodgett and J. H. Smits.	223,982	Feb. 3	12	5	17	205
Cultivator.	B. C. Bradley.	226,833	Apr. 27	819	228	17	915
Cultivator.	C. D. Carter.	224,074	Feb. 3	123	35	17	223
Cultivator.	T. C. Darby.	225,692	Mar. 23	851	247	17	633
Cultivator.	J. W. Davis.	227,741	May 18	764	215	17	1123
Cultivator.	J. J. Deal.	223,713	Jan. 20	613	164	17	126
Cultivator.	L. G. Fath.	234,973	Nov. 30	1445	388	18	1255
Cultivator.	J. Forbes.	224,773	Feb. 24	950	270	17	405
Cultivator.	J. A. Gogel.	227,687	May 18	693	197	17	1112
Cultivator.	S. C. Hunter.	235,087	Dec. 7	30	9	18	1286
Cultivator.	H. Ives.	231,582	Aug. 24	1132	317	18	450
Cultivator.	S. T. James.	227,360	May 11	325	95	17	1042
Cultivator.	D. M. Johnston.	226,321	Apr. 6	195	58	17	782
Cultivator.	O. J. King.	227,543	May 11	523	{ 151 152 }	{ 17 17 }	{ 1075 1075 }
Cultivator.	A. Lupton.	232,993	Oct. 5	236	65	18	777
Cultivator.	J. H. Peirce.	227,383	May 11	352	103	17	1046
Cultivator.	S. G. Pomeroy.	224,039	Feb. 3	74	23	17	216
Cultivator.	E. D. Powell.	231,846	Aug. 31	1458	409	18	508
Cultivator.	B. M. Root.	223,954	Jan. 27	911	243	17	184
Cultivator.	E. and E. C. Slosson.	224,111	Feb. 3	164	46	17	230
Cultivator.	J. H. Smith.	229,194	June 22	1245	342	17	1440
Cultivator.	S. R. Stanton.	233,379	Oct. 19	740	202	18	875
Cultivator.	A. Stauffacher.	225,304	Mar. 9	390	114	17	534
Cultivator.	J. W. Swickard.	235,393	Dec. 14	410	{ 115 116 }	{ 18 18 }	{ 1357 1357 }
Cultivator.	B. J. West.	226,691	Apr. 20	653	181	17	876
Cultivator and cotton-chopper.	J. W. Gilbert.	234,023	Nov. 2	246	67	18	1026
Cultivator and scraper.	R. A. Johnson.	232,133	Sept. 14	305	86	18	582
Cultivator and seeder.	L. Hinesly.	232,183	Sept. 14	369	102	18	593
Cultivator and seeder. Combined.	J. D. Chichester.	234,390	Nov. 16	706	190	18	1120
Cultivator and seeder. Combined.	J. H. Jones.	233,934	Nov. 2	119	33	18	1007
Cultivator and harrow. Combined.	J. W. Fleming.	226,656	Apr. 20	615	172	17	870
Cultivator. Combined riding and walking.	J. Pierpont.	223,755	Jan. 20	656	177	17	134
Cultivator. Corn.	G. R. Johnson.	225,526	Mar. 16	648	189	17	588
Cultivator. Cotton.	R. G. S. Austin.	228,853	June 15	866	236	17	1377
Cultivator. Cotton.	R. A. Johnson.	229,318	June 29	1398	333	17	1470
Cultivator-fender.	L. Davis, Jr.	226,501	Apr. 13	421	118	17	828
Cultivator-guard.	J. T. Douglass.	235,140	Dec. 7	95	29	18	1297
Cultivator. Hand.	D. W. Hughes.	233,762	Oct. 26	1200	333	18	962
Cultivator-ploy attachment.	H. J. Potter.	234,060	Nov. 2	285	79	18	1033
Cultivator riding attachment.	H. Cole.	224,390	Feb. 10	482	138	17	302
Cultivator-shovels. Steel blank for repointing.	H. Giles.	233,149	Oct. 12	438	120	18	817
Cultivator. Spring-tooth.	H. Springer.	224,487	Feb. 10	587	169	17	319
Cultivator. Sully.	H. R. Burdgo.	224,139	Feb. 3	190	55	17	235
Cultivator-teeth. Coupling-joint for.	D. C. Owen.	223,752	Jan. 20	653	176	17	133
Cultivator teeth or shovels. Machine for tempering.	G. W. Brown and S. G. Holyoke.	232,112	Sept. 14	285	80	18	579
Cultivator-tooth.	E. R. McCall.	226,531	Apr. 13	454	128	17	833
Cultivator-tooth.	J. S. Rowell.	232,850	Oct. 5	66	19	18	749
Cultivator-tooth.	L. S. Wood.	233,058	Oct. 5	315	87	18	790
Cultivator-tooth. Spring.	H. Springer.	231,368	Aug. 17	829	250	18	404
Cultivator. Wheel.	J. W. Hudson.	229,531	July 6	32	8, 9	18	13
Cultivator. Wheel.	J. T. Payne.	235,012	Nov. 30	1487	401	18	1263
Cultivator. Wheel.	W. Pendley and A. Moss.	235,452	Dec. 14	486	138	18	1370
Cultivator. Wheel.	J. H. Rhamy.	230,037	July 13	631	176	18	112
Cultivator. Wheel.	J. Van Buren.	235,593	Dec. 14	660	187	18	1399
Cultivator with harrow attachment. Spring-tooth.	H. Springer.	232,083	Sept. 7	249	68	18	565

## Alphabetical list of inventions—Continued.

Invention.	Name	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Cultivators. Shield or fender for corn- Cup: <i>See</i> Elevator-cup. Oil-cup. Grain-drill feed- Oil drip-cup. cup. Shaving-cup.	G. B. Snow	227,134	May 4	54	15	17	986
Curbing and guttering for sidewalks, &c.	F. Timmons	228,700	June 8	636	172	17	1335
Curling-iron	O. Medary	229,835	July 13	386	107	18	73
Current and tide-water wheel	H. Fake	234,396	Nov. 16	713	192	18	1122
Curry-comb	H. H. Norton	230,890	Aug. 10	355	102	18	312
Curry-comb	W. G. Schaefer	223,864	Jan. 27	805	216	17	168
Curry-comb	M. Sweet	223,775	Jan. 20	681	183	17	138
Curry-comb	M. Sweet	234,501	Nov. 16	835	223	18	1142
Currying-knife	J. Tuggle	227,597	May 11	588	168	17	1086
Curtain-bracket	H. T. Warner	225,894	Mar. 23	1076	307	17	670
Curtain-cord tightener	W. Klemm	227,269	May 4	208	60	17	1012
Curtain-cord tightener	J. Rancevau	235,169	Dec. 7	131	37	18	1303
Curtain-cord tightener	H. Resley	225,166	Mar. 2	208	59	17	492
Curtain-cord tightener	T. C. Richards	233,802	Oct. 26	1242	345	18	970
Curtain. Dust and salvage cornice	W. M. Brackett	225,101	Mar. 2	143	41	17	481
Curtain-fixture	G. L. Bailey	233,961	Nov. 2	165	42	18	1013
Curtain-fixture	G. Baldwin	227,200	May 4	131	38	17	999
Curtain-fixture	H. Boss	229,665	July 6	176	49	18	35
Curtain-fixture	M. Brown	223,878	Jan. 27	826	220	17	171
Curtain-fixture	W. Campbell	227,146	May 4	73	20	17	989
Curtain-fixture	A. Cosand	231,279	Aug. 17	799	224	18	390
Curtain-fixture	J. Darling	234,177	Nov. 9	432	117	18	1066
Curtain-fixture	W. H. Gilman and F. A. Wiswell	224,287	Feb. 10	386	105	17	283
Curtain-fixture	B. Handforth	227,001	Apr. 27	1024	284	17	948
Curtain-fixture	W. H. Harrison	232,963	Oct. 5	202	53	18	771
Curtain-fixture	J. Hinton	230,416	July 27	1103	310	18	202
Curtain-fixture	C. C. Kerr	231,817	Aug. 31	1421	400	18	502
Curtain-fixture	J. Montgomery	221,837	Feb. 24	1022	291	17	417
Curtain-fixture	J. M. Osgood	235,560	Dec. 14	618	177	18	1393
Curtain-fixture	P. Osgood	232,898	Oct. 5	123	33	18	758
Curtain-fixture	W. H. Richmond	229,184	June 22	1236	339	17	1439
Curtain-fixture	F. B. Scott	225,725	Mar. 23	887	259	17	639
Curtain-fixture	H. Seehausen	234,495	Nov. 16	830	221	18	1141
Curtain-fixture	A. B. Shaw	232,654	Sept. 28	937	257	18	701
Curtain-fixture	W. L. Washburn	236,126	Dec. 28	1328	364	18	1524
Curtain-fixture. Spring	P. Osgood	235,559	Dec. 14	618	177	18	1393
Curtain-roller	J. Fisher and J. Gamble	225,582	Mar. 16	709	209	17	600
Curtain-roller	J. C. Lake	223,594	Jan. 13	471	127	17	95
Curtain-roller	W. B. Noyes	225,857	Mar. 23	1034	298	17	663
Cushion: <i>See</i> Billiard-table cushion.							
Cuspadore	J. M. Wheeler	225,774	Mar. 23	948	273	17	648
Cut-off and governor. Automatic	C. V. B. Downing	227,967	May 25	1039	296	17	1178
Cut-off and valve. Waste-pipe	F. Millington and F. Watson	223,371	Jan. 6	184	48	17	34
Cut-off for cistern-leaders. Automatic	H. L. Russell	223,391	Jan. 6	205	54	17	37
Cut-off for cistern supply-pipes	J. Straszer	223,573	Oct. 19	967	266	18	913
Cut-off. Rain-water	D. Brady	233,972	Nov. 2	177	45	18	1015
Cut-off. Rain-water	W. Warren	230,681	Aug. 3	102	29	18	263
Cut-off. Steam-engine	W. Redmond	225,866	Mar. 23	1050	300	17	666
Cut-off valve. Steam-engine	W. Wright	227,144	May 4	70	19	17	989
Cut-off. Water	W. J. McLeod and G. H. Cormack	223,943	Nov. 2	133	36	18	1009
Cutlery handle. Folding	H. M. Barrows	222,626	Sept. 28	904	249	18	696
Cutlery handle. Pocket	B. McGovern	223,996	Oct. 5	239	66	18	778
Cutlery-handles. Attaching	H. Bramhall and E. Blaydes	231,392	Aug. 24	924	260	18	417
Cutlery. Pocket	J. W. Ayers	228,163	June 1	3	1	17	1227
Cutlery. Pocket	J. D. Frary	225,359	Mar. 9	451	132	17	545
Cutter: <i>See</i> Axle-cutter. Grain-band cutter. Band-cutter. Hog-nose cutter. Bias-cutter. Hoop-lock cutter. Billiard-cue cutter. Meat-cutter. Biscuit-cutter. Paper-cutter. Bolt-cutter. Peg-cutter. Bolt and rivet cut-ter. Pipe-cutter. ter. Rod and pipe cutter. Butter-cutter. Root-cutter. Cane-cutter. Rotary cutter. Cheese-cutter. Sod-cutter. Cigar-cutter. Straw-cutter. Clod-cutter. Stub-cutter. Cornstalk-cutter. Thread-cutter. Cracker-machine. Tobacco-cutter. cutter. Twine-cutter. Feed-cutter. Vegetable-cutter. Glass-cutter. Vulcanite-cutter.							
Cutter and cutter-finger	J. O. Brown	230,858	Aug. 10	317	93	18	307
Cutter-head	G. W. Amesbury	226,381	Apr. 13	267	79	17	805
Cutter-head	H. I. Bertermann	227,407	May 11	373	110	17	1050
Cutter-head setting-gage	G. W. Amesbury	230,914	Aug. 10	377	109	18	316
Cutting and clinching tool. Combined	P. D. Graham	227,243	May 4	183	53	17	1007
Cutting-blade handle. Extension	W. Webster	225,895	Mar. 23	1077	308	17	671
Cutting board or table	S. H. Hodges	227,252	May 4	192	56	17	1009
Cylinder engine. Triple	F. A. Gardner	226,055	Mar. 30	1292	361 365	17	717
Cylinder. Reducing and triturating	J. R. Alsing	229,577	July 6	83	22	18	21
Cylinders. Uniting the two halves of	W. T. Garratt	230,413	July 27	1100	309	18	201
Cymbal. Drum	T. W. McKeever	224,204	Feb. 3	266	77	17	248
Dairy-bureau	C. A. and G. A. Mosher	227,567	May 11	551	158	17	1079
Dam and lock	J. Du Bois	229,682	July 6	193	53, 54	18	37
Dam, dyke, &c. Permeable	D. M. Currie	224,398	Feb. 10	490	141	17	303
Dam or sluice-weir. Clough	A. Pasqueau	225,533	Mar. 16	C56	192	17	589

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Dams, canals, &c. Device for regulating the head of water in mill.	J. J. Lück and H. B. Bateman.....	234,996	Nov. 30	1467	395	18	1259
Dams. Device for regulating the head of water in mill.	J. J. Lück.....	232,284	Sept. 14	491	136	18	614
Damper.....	J. T. Farrell.....	223,222	Jan. 6	15	4	17	5
Damper. Boiler.....	W. S. Puckett.....	235,572	Dec. 14	636	181	18	1395
Damper. Cooking-stove.....	I. A. Sheppard.....	231,625	Aug. 24	1178	330	18	457
Damper for stoves and ranges. Check-draft.....	W. A. Spicer.....	230,832	Aug. 3	275	78	18	292
Damper. Furnace.....	E. W. Anthony.....	229,515	July 6	3	1, 2	18	9
Damper-regulator.....	A. D. Catlin.....	231,758	Aug. 31	1347	379	18	490
Damper-regulator.....	J. C. McLaughlin.....	232,359	Sept. 21	592	163	18	636
Damper-regulator. Automatic.....	F. A. Jones.....	223,446	Jan. 13	293	77	17	65
Damper-regulator. Automatic.....	F. A. Jones.....	224,544	Feb. 17	661	189	17	342
Damper-regulator. Automatic.....	H. Lyons.....	235,544	Dec. 14	602	171	18	1390
Damper-regulator for furnaces.....	W. D. Dickey.....	234,970	Nov. 30	1438	387	18	1254
Damper-regulator for steam-boilers.....	H. Lyons.....	232,994	Oct. 5	236	65	18	777
Damper. Stove.....	P. A. Aikman.....	233,456	Oct. 19	835	230	18	691
Damper. Stove.....	C. A. Hamlin.....	227,895	May 25	952	273	17	1165
Damper. Stove-pipe.....	C. B. Clark and J. T. Lambert.....	235,514	Dec. 14	564	161	18	1333
Damper. Stove-pipe.....	W. G. Lindsay.....	235,263	Dec. 7	241	66	18	1321
Damper. Stove-pipe.....	J. L. Natchez.....	230,805	Aug. 3	238	69	18	286
Damper. Stove-pipe.....	W. Scully.....	231,241	Aug. 17	760	212	18	383
Damper. Stove-pipe.....	S. Selden and M. Griswold, Jr.....	226,680	Apr. 20	641	178	17	874
Damper. Stove-pipe.....	U. B. Winchell.....	234,366	Nov. 9	652	177	18	1104
Dancing. Appliance for self-instruction in.....	M. D. De Long.....	233,482	Oct. 19	859	237	18	894
Danger-signal.....	M. A. Vosburgh.....	228,232	June 1	84	25	17	1241
Dash-molding.....	T. E. Wright.....	224,317	Feb. 10	399	113	17	259
Dashes. Device for manufacturing.....	G. M. Peters and A. Standish.....	226,417	Apr. 13	310	90	17	811
Dashes. Machine for the manufacture of.....	G. M. Peters and A. Standish.....	232,899	Oct. 5	125	33	18	758
Deaf to hear. Device for aiding the.....	F. D. Clarke and M. G. Foster.....	226,902	Apr. 27	904	251	17	929
Decoy-bird.....	F. H. Gladwish.....	231,906	Sept. 7	35	7	18	530
Decoy-duck.....	J. Appleton.....	235,845	Dec. 28	987	273	18	1469
Decoys. Frame for supporting dead birds as.....	F. A. Allen.....	230,600	Aug. 3	2	1	18	247
Deflagrating compound.....	J. A. Robinson and R. H. Dimock.....	228,935	June 15	952	.....	17	1390
Deflection-stand.....	C. H. Jackson and F. S. Gnerber.....	224,540	Feb. 17	657	188	17	342
Dental amalgam filings.....	R. S. Williams.....	235,480	Dec. 14	524	151	18	1377
Dental burrs. Sharpening.....	M. A. Richardson.....	226,110	Mar. 30	1353	381	17	727
Dental compound for preventing pain.....	H. E. Dennett.....	232,807	Oct. 5	12	.....	18	741
Dental disk. Felt.....	W. W. Smith.....	225,884	Mar. 23	1067	305	17	669
Dental engine.....	E. T. Starr.....	229,645	July 6	151	42, 43	18	31
Dental engine.....	E. T. Starr.....	233,294	Oct. 12	614	169	18	848
Dental engine.....	B. M. Wilkerson.....	228,149	May 25	1239	352	17	1210
Dental-engine hand-piece.....	E. T. Starr.....	231,734	Aug. 31	1320	371	18	486
Dental-engine hand-piece.....	E. T. Starr.....	232,311	Sept. 14	519	144	18	619
Dental-engine hand-piece.....	E. T. Starr.....	233,707	Oct. 26	1138	318	18	951
Dental-engine hand-piece.....	A. Weber.....	231,945	Sept. 7	78	21	18	537
Dental engine. Portable.....	B. J. Quattlebaum.....	236,080	Dec. 28	1262	348	18	1514
Dental-engine treadle mechanism.....	W. A. Johnston.....	229,614	July 6	122	33	18	27
Dental forceps.....	W. P. Tisdale.....	233,817	Oct. 26	1261	352	18	973
Dental hand-piece.....	E. T. Starr.....	233,708	Oct. 26	1140	318	18	951
Dental hand-piece.....	E. T. Starr.....	233,709	Oct. 26	1143	318	18	952
Dental jaw-brace.....	G. H. Hard.....	225,525	Mar. 16	647	188	17	588
Dental month-glasses. Support for.....	R. B. Donaldson.....	224,663	Feb. 17	802	228	17	366
Dental plugger.....	A. M. Denham.....	229,809	July 13	354	99	18	69
Dental plugger.....	H. D. Justi.....	224,595	Feb. 17	730	207	17	354
Dental plugger.....	B. F. La Salle.....	226,177	Apr. 6	36	9	17	752
Dental plugger.....	G. M. Renn.....	232,758	Sept. 28	1055	289	18	721
Dental plugger.....	G. B. Snow.....	224,050	Feb. 3	88	26	17	218
Dental plugger.....	E. T. Starr.....	229,769	July 6	299	83	18	52
Dental plugger.....	E. T. Starr.....	233,572	Oct. 19	965	266	18	913
Dental speculum and shield. Combined.....	A. W. Edwards.....	226,989	Apr. 27	1011	280	17	945
Dentaphone.....	T. W. Graydon.....	225,365	Mar. 9	459	134	17	546
Dentist's and barber's chair.....	A. Abel.....	229,227	June 29	1285	353	17	1455
Dentist's chair.....	E. Burritt.....	228,979	June 22	1019	277	17	1408
Dentist's chair.....	N. N. Horton.....	232,352	Sept. 21	582	160	18	635
Dentist's chair.....	E. T. Starr.....	225,432	Mar. 9	530	152	17	557
Dentures. Method of and apparatus for making.....	R. Telschow.....	231,375	Aug. 17	896	252 } 253 }	18	405
Deodorizing noxious gases.....	A. W. Louth.....	234,793	Nov. 23	1213	327	18	1210
Depurator.....	A. Seyberlich.....	230,351	July 20	993	281	18	178
Derrick.....	E. J. Marsters.....	229,624	July 6	129	36	18	28
Derrick.....	J. McMyler.....	234,313	Nov. 9	594	162	18	1094
Derrick for hoisting, grubbing, &c.....	J. Motheral.....	227,442	May 11	412	120	17	1056
Derrick. Portable folding.....	E. C. Bennett.....	227,875	May 25	927	265 } 266 }	17	1161
Desk.....	A. W. Koch.....	224,294	Feb. 10	373	107	17	285
Desk. Accountant's or book-keeper's.....	W. W. Underhill.....	232,784	Sept. 28	1095	300	18	728
Desk and seat. School.....	T. H. B. Turner and H. A. Logan.....	231,509	Aug. 24	1050	294	18	437
Desk and work-box. Combined writing.....	A. Wernicke.....	224,257	Feb. 3	319	92	17	256
Desk. Reading.....	J. A. Crandall.....	230,750	Aug. 3	176	52	18	275
Desk. School.....	G. W. Fitts and L. T. Griffin.....	226,842	Apr. 27	830	231	17	917
Desk. School.....	J. Glendenning.....	224,174	Feb. 3	231	67	17	242
Desk. Table.....	D. M. Stevenson.....	228,570	June 8	496	133	17	1314
Desk. Writing.....	J. Peard.....	232,753	Sept. 28	1049	287	18	720
Detector:							
See Coin-detector. Time-detector.							
Theft-detector.							
Detonator.....	C. A. Faure and G. Trench.....	233,406	Oct. 19	772	.....	18	880
Diagram for theaters, &c.....	H. T. Lemon.....	228,204	June 1	48	15	17	1235
Diagram-sheet. Perspective.....	E. M. Hamilton.....	229,404	June 29	1501	414	17	1483
Diamond-polishing machine.....	A. Hessels.....	231,577	Aug. 24	1127	315	18	449
Die:							
See Nail-pointing die.							
Die.....	W. E. Snediker.....	235,308	Dec. 7	288	81	18	1329
Die and former.....	C. G. Blum and J. Schoettle.....	225,047	Mar. 2	88	24	17	471



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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Dies. Manufacture of.....	M. R. Hanley.....	234,278	Nov. 9	556	151	18	1087
Digger:							
See Clay-digger. Potato-digger.							
Post-hole digger.							
Dining-table for vessels. Self-leveling.....	J. H. Laskey.....	233,778	Oct. 26	1214	337	18	965
Diphtheria remedy.....	S. H. Longard.....	230,141	July 20	746	.....	18	139
Direct-acting engine.....	B. I. Henderson.....	235,084	Dec. 7	26	8	18	1285
Dish. Baking.....	T. Leach.....	234,790	Nov. 23	1210	336	18	1209
Dish. Butter.....	W. C. Beattie.....	234,739	Nov. 23	1147	309	18	1200
Dish. Butter.....	T. J. Pairpoint.....	232,842	Oct. 5	58	16	18	748
Dish. Compartment.....	G. O. Goessling.....	231,034	Aug. 10	509	143	18	336
Dish-drainer.....	J. Fithian.....	233,340	Oct. 19	690	189	18	867
Dish-handle. Detachable.....	J. B. Timberlake.....	230,362	July 20	1005	285	18	180
Dish-heater.....	N. D. Morey.....	230,039	July 13	612	170	18	109
Dish-heater.....	H. A. Sawyer.....	230,199	July 20	811	230	18	150
Dish-washer.....	B. J. Howe.....	229,413	June 29	1510	416	17	1484
Dish. Wooden.....	S. H. Gray.....	233,615	Oct. 26	1034	287	18	934
Dishes. Butter-holder for butter.....	W. R. Mackay.....	226,666	Apr. 20	626	174	17	872
Dishes. Plato for butter.....	S. W. Babbitt.....	235,192	Dec. 7	156	44	18	1307
Disinfecting apparatus for water-closets, &c.....	E. J. Mallett, Jr.....	224,553	Feb. 17	672	192	17	344
Disinfecting device for urinals, &c.....	E. J. Mallett, Jr.....	225,842	Mar. 23	1020	293	17	661
Disinfection compound.....	W. F. Wheeler.....	224,367	Feb. 10	459	.....	17	298
Disintegrating and decorticating fibrous plants. Machine for.....	J. H. Brown.....	233,976	Nov. 2	180	46	18	1016
Disintegrating apparatus.....	A. B. Lipsey.....	230,140	July 20	745	208	18	139
Disintegrating-mill.....	L. J. Bennett.....	225,552	Mar. 16	679	{ 198 199 }	17	594
Disintegrating ramie, &c. Machine for.....	A. Angell.....	227,469	May 11	445	128	17	1062
Disk mill. Vertical.....	C. Fink.....	233,495	Oct. 19	872	241	18	897
Disks of varying thickness. Apparatus for gaging and assorting.....	M. M. Rhodes.....	231,359	Aug. 17	879	248	18	403
Dissolving apparatus.....	J. Tregurtha.....	227,396	May 11	362	106	17	1048
Distillation of oils.....	W. Atwood.....	226,151	Apr. 6	3	1	17	747
Distillation of whisky. Separator for the.....	M. V. Monarch.....	227,035	Apr. 27	1064	295	17	954
Distillation of wood. Apparatus for purification of the products resulting from.....	J. A. Mathieu.....	234,998	Nov. 30	1471	{ 395 396 }	18	1260
Distilling alcohol. Process and apparatus for.....	G. W. Kidd.....	227,018	Apr. 27	1044	290	17	951
Distilling and rectifying apparatus.....	E. Fox.....	235,521	Dec. 14	573	163	18	1385
Distilling apparatus.....	H. E. Smith.....	230,901	Aug. 10	366	106	18	314
Distilling apparatus. Fresh-water.....	G. W. Baird.....	233,184	Oct. 12	479	132	18	824
Distilling oil. Apparatus for.....	P. Nicolai.....	225,635	Mar. 16	771	226	17	610
Distilling petroleum. Process and apparatus for.....	S. Cheney.....	230,239	July 20	855	242	18	156
Ditch-cleaning machine.....	W. P. Smith.....	225,198	Mar. 2	245	69	17	499
Ditcher and scraper. Combined.....	G. Palmer.....	225,637	Mar. 16	773	227	17	611
Ditching and dredging machine.....	J. A. Murray.....	230,329	July 20	967	{ 274 275 }	18	173
Ditching and embanking machine.....	T. J. Chappell and J. T. Ricketts.....	235,622	Dec. 21	702	199	18	1413
Ditching-machine.....	U. Blickensderfer.....	227,209	May 4	145	42	17	1001
Ditching-machine.....	I. C. Covert.....	232,631	Sept. 28	910	250	18	697
Ditching-machine.....	C. D. Edwards.....	225,579	Mar. 16	706	208	17	599
Ditching-machine.....	E. Elayer.....	229,878	July 13	436	120	18	81
Ditching-machine.....	W. H. Hickok.....	235,768	Dec. 21	867	242	18	1440
Ditching-machine.....	A. D. Martin.....	228,092	May 25	1179	335	17	1201
Ditching-machine.....	J. A. Railey.....	227,651	May 18	653	185	17	1106
Ditching-machine.....	W. Stacy.....	225,657	Mar. 16	791	232	17	614
Ditching-machine.....	G. W. Veil.....	234,352	Nov. 9	635	173	18	1101
Dividers.....	C. F. A. Reimann.....	227,578	May 11	564	161	17	1081
Dividers.....	J. F. Sullivan.....	225,436	Mar. 9	535	153	17	558
Dividers. Proportional.....	J. M. Villa.....	229,777	July 6	307	86	18	53
Dividing-engine.....	S. Darling.....	227,962	May 25	1034	295	17	1177
Dividing-engines. Compensating errors in screws of.....	S. Darling.....	226,162	Apr. 6	17	5	17	749
Diving-bell.....	C. F. Pike.....	230,197	July 20	808	{ 228 229 }	18	149
Diving-bells. Arm and attachment for.....	C. F. Pike.....	228,556	June 8	477	128	17	1311
Dock. Floating dumping.....	W. D. Tracy.....	232,316	Sept. 14	524	146	18	620
Doffer-comb.....	J. K. Wright.....	224,980	Feb. 24	1175	336	17	442
Doffer-combs. Mechanism for operating.....	G. Fowler.....	231,160	Aug. 17	654	185	18	367
Dog-iron mold.....	J. McDermott.....	225,712	Mar. 23	871	255	17	637
Dog-power machine.....	D. I. Kuhn.....	233,420	Oct. 19	792	219	18	884
Doll.....	C. T. Dotter.....	235,218	Dec. 7	192	52	18	1312
Doll-joint.....	G. W. Sanders.....	235,300	Dec. 7	281	79	18	1327
Doll-support.....	L. Herrick.....	232,403	Sept. 21	645	178	18	645
Dolls. Coloring the eyebrows, &c., of celluloid.....	W. B. Carpenter.....	235,933	Dec. 28	1094	302	18	1486
Domestic boiler.....	C. Friedeborn.....	228,339	June 1	207	58	17	1260
Door.....	J. F. Martin.....	225,847	Mar. 23	1024	295	17	661
Door-alarm.....	J. Simon.....	231,502	Aug. 24	1041	292	18	436
Door and shutter fastener.....	A. Sweetland.....	223,408	Jan. 6	225	60	17	41
Door and window fastening.....	N. Thompson.....	228,698	June 8	634	172	17	1334
Door bolt and check. Combined.....	I. D. Bush.....	223,477	Jan. 13	334	89	17	72
Door bolt. Double.....	W. P. Brachmann.....	232,672	Sept. 28	960	263	18	705
Door-check.....	C. T. Close.....	227,414	May 11	379	112	17	1051
Door-check.....	C. Hooper.....	225,380	Mar. 9	473	138	17	548
Door-check.....	S. D. Kelley.....	230,422	July 27	1115	313	18	204
Door-check.....	N. Kidney.....	224,092	Feb. 3	145	41	17	227
Door-check.....	A. Meritte.....	224,940	Feb. 24	1132	323	17	435
Door-check.....	L. C. Norton.....	223,776	June 15	768	211	17	1364
Door-check.....	H. B. Pruden.....	226,786	Apr. 20	750	209	17	892
Door-fastening.....	C. H. Roloson.....	230,062	July 13	637	177	18	113
Door for cabinets, cases, &c. Circumrotary.....	C. Senrick.....	230,153	July 20	762	212	18	141
Door-hanger.....	T. H. Bottomley.....	223,985	Feb. 3	15	6	17	205
Door-hanger.....	C. W. Bullard.....	233,836	Nov. 2	11	3	18	988
Door-hanger.....	C. B. Clark.....	233,659	Oct. 26	1088	303	18	943
Door-hanger.....	J. W. Coburn.....	228,607	June 8	541	144	17	1320
Door-hanger.....	S. A. Drake.....	236,006	Dec. 28	1177	326	18	1500

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				Spec.	Dr &g	Vol.	Page.
Door-hanger.....	C. Johnson.....	232,828	Oct. 5	42	11	18	745
Door-hanger.....	G. R. Kidder.....	230,785	Ang. 3	215	62	18	281
Door-hanger.....	A. N. Monteer.....	223,941	Jan. 27	901	239	17	183
Door-hanger.....	C. W. Pierce.....	232,843	Oct. 5	59	17	18	748
Door-hanger.....	S. Shreffler, Jr.....	231,686	Aug. 31	1260	354	18	477
Door-hanger.....	S. Shreffler, Jr.....	232,555	Sept. 21	818	236	18	674
Door-hanger.....	L. Terry.....	232,659	Sept. 23	943	259	18	702
Door lock-handle. Sliding.....	W. E. Sparks.....	226,682	Apr. 20	644	179	17	875
Door-mat.....	J. W. Lilly.....	232,408	Sept. 21	650	179	18	646
Door-mats. Manufacture of.....	W. E. Lawrence.....	227,115	May 4	26	8	17	983
Door-plate and letter-receiver. Combined.....	H. Free.....	231,031	Ang. 10	507	143	18	336
Door-plate, card-receiver, and indicator. Combined.....	W. P. Marshall.....	231,596	Aug. 24	1151	322	18	453
Door-plates. Making.....	H. D. Kramer.....	223,740	Jan. 20	639	172	17	131
Door. Screen.....	J. Barkheimer.....	225,680	Mar. 23	835	243	17	631
Door-securer.....	J. Armstrong.....	227,712	May 18	731	205	17	1117
Door. Sliding.....	D. K. Miller.....	235,097	Dec. 7	39	12	18	1287
Door-spring.....	J. H. Barker.....	224,377	Feb. 10	468	134	17	300
Door-spring.....	G. Bauman.....	228,856	June 15	869	237	17	1378
Door-spring.....	T. Crane.....	233,837	Nov. 2	12	4	18	988
Door-spring.....	I. S. Davis.....	225,973	Mar. 30	1194	339	17	702
Door-spring.....	M. R. Davis.....	224,584	Feb. 17	718	204	17	352
Door-spring.....	T. Rowe.....	224,730	Feb. 17	872	249	17	378
Door-spring.....	F. W. Smith.....	235,582	Dec. 14	648	184	18	1397
Door-spring.....	W. W. Yokom.....	234,832	Nov. 23	1264	340	18	1219
Door. Tilting.....	G. Wagner.....	229,502	June 29	1618	446	17	1499
Door-wicket.....	J. Stroud and O. C. Titus.....	223,552	Jan. 13	419	112	17	86
Doors. Device for forcibly opening.....	L. Fancher.....	233,665	Oct. 26	1095	304	18	944
Doors. Hanging.....	W. F. Beery.....	234,703	Nov. 23	1105	297	18	1193
Doors. Sheave or roller for sliding.....	W. J. Lane.....	231,820	Aug. 31	1423	400	18	503
Doors. Stay-roller for sliding.....	H. E. Richards.....	229,185	June 22	1237	340	17	1439
Doorways, &c. Means for tightly closing.....	G. B. Thompson.....	234,895	Nov. 30	1344	362	18	1239
Double gate or valve.....	P. Giovannini.....	232,888	Oct. 5	114	30	18	756
Double-tree.....	J. J. H. Parrott.....	227,049	Apr. 27	1086	300	17	957
Double-tree.....	W. W. Winegar.....	231,946	Sept. 7	80	21	18	537
Doubling, &c., strands of fibrous material. Machine for.....	J. E. and E. Atwood.....	227,198	May 4	130	37	17	999
Dovetail-pattern.....	J. B. Vallee.....	231,943	Sept. 7	76	20	18	536
Dovetailing-machine.....	G. W. Parker.....	224,106	Feb. 3	157	45	17	229
Draft attachment for vehicles.....	L. Petthoff.....	232,297	Sept. 14	502	140	18	616
Draft-bar. Vehicle.....	H. Livingston.....	226,407	Apr. 13	300	86	17	810
Draft-equalizer.....	W. Bayley.....	234,702	Nov. 23	1105	297	18	1193
Draft-equalizer.....	S. Glassburn.....	226,305	Apr. 6	182	53	17	779
Draft-equalizer.....	D. M. Harkrader.....	231,037	Ang. 10	512	144	18	336
Draft-equalizer.....	F. Marsh.....	225,709	Mar. 23	868	254	17	637
Draft-equalizer.....	F. H. Sandefer.....	234,625	Nov. 16	1000	266	18	1170
Draft-equalizer.....	H. E. Schmidt.....	233,557	Oct. 19	949	261	18	910
Draft-equalizer for side reaping-machines.....	A. W. Klammer.....	236,042	Dec. 28	1222	337	18	1507
Draft for plows. Central.....	L. Begon.....	227,406	May 11	372	110	17	1049
Draft or tug link. Spring.....	J. F. Miller.....	224,210	Feb. 3	271	79	17	249
Draft-regulator for harrows.....	P. H. Nelson.....	225,759	Mar. 23	931	269	17	646
Drag or harrow. Sulky.....	M. H. Woodruff.....	231,385	Aug. 17	908	255	18	408
Drag. Sulky.....	J. M. Wakeman.....	235,832	Dec. 21	943	263	18	1455
Drain, gas, and water pipe.....	M. M. Camp.....	227,412	May 11	378	111	17	1050
Drain-pipe. Burning.....	J. Murtagh.....	236,066	Dec. 28	1249	345	18	1512
Drain-pipes. Machine for forming and laying continuous.....	W. Hamlet.....	231,908	Sept. 7	36	8	18	530
Drain-tile gate.....	F. Darst.....	231,544	Ang. 24	1090	306	18	443
Drainage apparatus. House.....	C. W. Durham.....	235,754	Dec. 21	853	238	18	1438
Draw-bench and carriage.....	A. and J. Stewart and J. Wother-spoon.....	234,211	Nov. 9	478	130	18	1074
Drawer for safe-keeping of drawings.....	G. B. Whiting.....	223,423	Jan. 6	242	64	17	44
Drawer-front.....	B. A. Armstrong.....	224,066	Feb. 3	113	33	17	222
Drawer-lock.....	G. E. Bendix.....	234,454	Nov. 16	781	210	18	1133
Drawer-pull.....	G. L. Donovan.....	225,576	Mar. 16	703	207	17	599
Drawer-pull.....	J. E. Merriman.....	234,139	Nov. 9	384	105	18	1057
Drawer-pull.....	G. W. Tucker.....	234,696	Nov. 23	1100	295	18	1192
Drawing and cutting ovals. Machine for.....	E. L. Gaylord.....	234,268	Nov. 9	543	148	18	1085
Drawing. Apparatus for assisting in.....	W. B. O. Peabody.....	228,273	June 1	140	39, 40	17	1249
Drawing. Apparatus for illustrating the rules of perspective.....	F. O'Ryan.....	224,945	Feb. 24	1139	326	17	436
Drawing-frame stop mechanism.....	D. W. Hayden.....	227,002	Apr. 27	1025	284	17	948
Drawing-frame stop mechanism.....	D. W. Hayden.....	227,003	Apr. 27	1026	284	17	948
Drawings and photographs. Method of and apparatus for tinting.....	W. Kurtz.....	226,760	Apr. 20	724	202	17	888
Dredge. Revolving.....	E. Moore.....	233,365	Oct. 19	723	197	18	872
Dredge. Steam vacuum.....	A. C. Whittier.....	235,478	Dec. 14	521	150 } 151 }	18	1376
Dredge. Steam vacuum.....	C. Whittier.....	235,601	Dec. 14	668	189	18	1401
Dredger. Steam vacuum.....	H. C. Sears.....	230,072	July 13	647	180	18	115
Dredging apparatus.....	W. H. Seward.....	226,557	Apr. 13	480	135	17	837
Dredging apparatus.....	W. A. Young.....	235,190	Dec. 7	152	43	18	1307
Dredging-bucket.....	W. H. Seward.....	234,691	Nov. 23	1095	294	18	1191
Dredging-machine.....	A. J. Cook.....	226,223	Apr. 6	86	23, 24	17	761
Dredging-machine.....	J. Maguire and W. A. Alexander.....	224,197	Feb. 3	257	75	17	246
Dredging-machine.....	J. Menge.....	229,730	July 6	252	70	18	45
Dredging-machine.....	Z. Williams.....	225,194	Mar. 2	239	67	17	497
Dredging-machine attachment.....	J. A. Ball.....	225,205	Mar. 9	263	75	17	515
Dredging-machine. Vacuum.....	B. Hedge and F. A. Cushman.....	226,661	Apr. 20	621	173	17	871
Dredging-scoop.....	A. E. Hall.....	231,665	Aug. 31	1237	348	18	473
Dress-guard.....	T. O. Memery.....	230,032	July 13	606	168	18	108
Dress. Nursing.....	M. Duencel.....	232,246	Sept. 14	446	122	18	606
Dress-protector.....	M. M. Graham.....	236,019	Dec. 28	1193	330	18	1503
Dress-protector.....	E. S. Williams.....	223,621	Jan. 13	502	136	17	99
Dress-shield.....	M. Dewey.....	234,909	Nov. 30	1366	367	18	1242

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr's.	Vol.	Page.
Dress-stiffener .....	N. Jenkins .....	225,754	Mar. 23	927	268	17	645
Drier:							
<i>See</i> Clothes-drier.      Offal-drier.							
Fruit-drier.            Paper-drier.							
Fruit and vegetable    Rotary drier.							
drier.                Stand-pipe drier.							
Grain-drier.          Tobacco-drier.							
Malt and hop drier.							
Drier .....	B. Leidersdorf and H. M. Mendel...	223,597	Jan. 13	475	128	17	95
Drier .....	J. H. Prichard .....	232,544	Sept. 21	807	223	18	673
Drier .....	H. Tilden .....	232,572	Sept. 21	830	230 231	18	677
Drier .....	E. V. Wingard .....	231,133	Aug. 10	616	174	18	354
Drill:							
<i>See</i> Coal, &c., drill.    Manure-drill.							
Coal and rock drill.    Mining-drill.							
Corn-drill.             Ratchet-drill.							
Expanding drill.        Rock-drill.							
Fertilizer-drill.        Seed-drill.							
Grain-drill.            Wheat-drill.							
Hand-drill.							
Drill .....	J. L. Bryant .....	226,043	Mar. 30	1280	360	17	716
Drill and bit-stock. Combined .....	S. A. Bostwick .....	225,682	Mar. 23	837	243	17	631
Drill-hole cleaner. Pneumatic .....	J. L. Prentiss .....	224,558	Feb. 17	677	193	17	345
Drill-press attachment .....	J. G. Pope .....	234,687	Nov. 23	1090	293	18	1190
Drill-tooth .....	C. B. Boynton .....	230,733	Aug. 3	155	46	18	272
Drilling-machine .....	T. Naish .....	234,603	Nov. 16	975	259	18	1166
Drilling-machine. Temple-roller .....	N. Chapman .....	226,491	Apr. 13	401	113	17	825
Drip-pan for oil-barrels .....	C. E. Laverty .....	234,411	Nov. 16	732	198	18	1125
Dripping-can .....	H. C. Mosceley .....	232,141	Sept. 14	313	88	18	583
Drive-wheels. Machine for inserting rubber in the peripheries of .....	W. T. Henry .....	227,106	May 4	19	6	17	981
Drop-handle .....	J. Kintz .....	224,702	Feb. 17	842	240	17	373
Drop-light gasalier .....	J. E. Brown .....	232,592	Sept. 28	865	240	18	690
Drop-light gasalier .....	J. E. Brown .....	232,593	Sept. 28	867	240	18	690
Dropper:							
<i>See</i> Corn-dropper.      Fertilizer-dropper.							
Drum .....	A. L. Fayaux .....	223,586	Jan. 13	462	125	17	93
Drum-heads. Manufacture of celluloid-coated .....	W. M. Deutsch and C. O. Kanonse ..	233,604	Oct. 26	1023		18	932
Drum. Heating .....	W. C. Doddridge .....	223,715	Jan. 20	615	165	17	127
Drums. Jacket for shipping .....	J. H. Precater .....	227,949	Jan. 27	908	241	17	184
Drying and preserving by cold air. Apparatus for .....	L. G. Volkmar .....	227,326	May 4	269	79	17	1022
Drying apparatus .....	E. F. Ely .....	229,109	June 22	1160	317 318	17	1428
Drying apparatus .....	A. J. Kuhn .....	227,020	Apr. 27	1047	291	17	951
Drying apparatus .....	W. J. Johnson .....	228,259	June 1	120	34	17	1245
Drying-kiln .....	C. L. Campbell .....	224,814	Feb. 24	1000	283	17	413
Drying-kiln .....	E. and B. Holmes .....	231,168	Aug. 17	671	189	18	369
Drying-machine .....	A. Edwards .....	234,860	Nov. 30	1303	351	18	1232
Dummy .....	R. H. Weir .....	223,419	Jan. 6	239	63	17	43
Dumping-machine .....	C. D. Phelps .....	232,202	Sept. 14	391	109	18	597
Dust and cinder arrester .....	D. H. Hayden .....	229,125	June 22	1176	322	17	1430
Dust. Apparatus for collecting and settling .....	C. D. Bigelow .....	230,992	Aug. 10	464	132	18	329
Dust-pan .....	U. D. Alexander .....	234,044	Nov. 23	1037	279	18	1183
Dust-pan .....	C. F. Heath .....	224,334	Feb. 10	422	120	17	292
Dust-pan .....	G. E. Neville .....	232,361	Sept. 21	594	163	18	637
Dust-pan .....	M. F. Pierce .....	226,877	Apr. 27	879	245	17	925
Dust-pan .....	E. J. Riley .....	225,302	Mar. 9	387	113	17	534
Dust-pan .....	W. H. Stichter .....	228,692	June 8	627	170	17	1333
Dust-pan and brush-holder .....	J. F. Houghton .....	233,857	Nov. 2	39	10	18	993
Dust receiver. Carpet and floor .....	N. Pyles .....	226,788	Apr. 20	751	210	17	893
Duster. Feather .....	A. R. Davis .....	226,601	Apr. 20	550	154	17	860
Duster. Feather .....	G. M. Richmond .....	227,837	May 18	862	246	17	1139
Dwelling-house .....	T. Hurley .....	229,416	June 29	1512	417	17	1485
Dwelling, &c., ventilator .....	J. F. Baldwin .....	233,962	Nov. 2	167	43	18	1014
Dye-stuff or coloring-matter .....	F. Köhler .....	224,927	Feb. 24	1121		17	433
Dye-stuff or coloring-matter .....	F. Köhler .....	224,928	Feb. 24	1121		17	433
Dye-stuff or coloring-matter. Manufacture of .....	A. Baeyer .....	235,488	Dec. 14	532		18	1378
Dye-wood chipper .....	A. Innis .....	233,764	Oct. 26	1202	333	18	963
Dye-wood cutter .....	A. Innis .....	233,765	Oct. 26	1202	334	18	963
Dyeing and washing yarn, cloth, &c. Apparatus for .....	H. P. and W. Gray, Jr. ....	225,363	Mar. 9	457	133	17	546
Dyeing yarns. Apparatus for .....	F. P. Danunhauer .....	231,014	Aug. 10	486	138	18	332
Dynamometer. Electro .....	A. E. Dolbear .....	228,807	June 15	813	222	17	1370
Dynamometer for rotary shafts .....	R. H. Mather .....	235,164	Dec. 7	126	36	18	1302
Ear-drops. Lobe attachment for .....	B. A. Ballou .....	229,080	June 22	1131	307	17	1424
Ear-drum. Artificial .....	H. P. K. Peck .....	225,566	Dec. 14	629	179	18	1394
Ear-piercer .....	J. Böning .....	229,581	July 6	87	23	18	22
Ear-piercer .....	M. Haller .....	231,036	Aug. 10	511	144	18	336
Ear-piercer .....	J. McAlpine .....	234,881	Nov. 30	1328	358	18	1236
Ear-piercer .....	E. Seyfarth .....	230,073	July 13	649	181	18	115
Ear-ring .....	L. Rieger, Jr. ....	227,581	May 11	567	162	17	1082
Ear-rings, &c. Fastening for .....	J. H. Purdy .....	227,922	May 25	981	281	17	1169
Earth. Apparatus for moving .....	H. A. Carson .....	228,980	June 22	1021	278	17	1408
Earth-boring apparatus for Artesian and other wells .....	T. Von Ringharz .....	228,780	June 15	777	212	17	1365
Earthenware saucepan .....	M. Scott, G. W. and W. D. Sherwood.	225,492	Mar. 16	608	176	17	581
Earthenware vessel .....	W. H. Elverson .....	233,664	Oct. 26	1094	304	18	944
Earthenware vessel .....	M. Scott .....	233,562	Oct. 19	954	262	18	911
Easel .....	A. R. Beal .....	228,435	June 8	327	89	17	1289
Easel .....	I. Wilkins, Jr. ....	226,139	Mar. 30	1385	390	17	732
Easel for carriage-painters .....	D. Warrington .....	223,618	Jan. 13	500	135	17	99
Easel for decorating pottery .....	C. A. Palmer .....	230,432	July 27	1126	316	18	206
Eaves-box .....	J. M. Hess .....	233,677	Oct. 26	1105	307	18	946
Eaves-trough .....	L. S. Bonbrak .....	230,396	July 27	1081	304	18	199
Eaves-trough hanger .....	A. H. Braunlich .....	225,684	Mar. 23	838	214	17	631
Eaves-trough hanger .....	F. Otto .....	227,702	May 18	713	202	17	1115

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Eaves-trough hauger.....	G. J. Parks.....	232,293	Sept. 14	498	139	18	615
Eaves-trough hanger.....	J. H. Severding.....	235,386	Dec. 14	404	113	18	1356
Eaves-trough support.....	W. R. Wilcox.....	235,111	Dec. 7	54	17	18	1290
Eaves-troughs. Machine for forming.....	G. L. Calvert and G. W. Blair.....	226,157	Apr. 6	9	3	17	748
Edge-setting machine.....	J. Edson.....	233,842	Nov. 2	21	5	18	990
Edge-tools. Cast-steel plate for.....	J. Lane.....	230,948	Aug. 10	411	118	18	321
Edge trimmer and burnisher.....	D. F. Hallahan.....	229,698	July 6	213	58	18	39
Edge-trimming tool.....	G. E. Gooding and E. H. Taylor.....	228,456	June 8	350	96	17	1293
Edger.....	J. A. Robb.....	227,926	May 25	985	{ 282 283 }	17	1170
Edger. Gang.....	W. J. Perkins.....	232,754	Sept. 28	1050	288	18	720
Egg-beater.....	T. W. Brown.....	229,372	June 29	1467	404	17	1478
Egg-beater.....	T. W. Brown.....	232,328	Sept. 21	552	152	18	630
Egg-beater.....	P. F. Carroll.....	235,620	Dec. 21	700	199	18	1412
Egg-beater.....	J. Emmert.....	225,693	Mar. 23	853	247	17	634
Egg-beater.....	L. B. Foss.....	232,018	Sept. 7	172	45	18	552
Egg-beater.....	F. Henry.....	232,125	Sept. 14	296	84	18	581
Egg-beater.....	J. R. Hughes.....	235,245	Dec. 7	221	60	18	1317
Egg-beater.....	H. B. McCoel.....	232,358	Sept. 21	591	162	18	636
Egg-beater.....	E. Morse and L. Burnham.....	227,378	May 11	348	101	17	1045
Egg-beater.....	G. A. Schmidt.....	233,287	Oct. 12	600	165	18	845
Egg-beater.....	S. A. Ulmer.....	224,117	Feb. 3	172	48	17	231
Egg-beating apparatus.....	T. Earle.....	225,003	Mar. 2	94	7	17	461
Egg-boiler.....	L. M. Couchoud.....	235,998	Dec. 28	1167	324	18	1499
Egg-carrier.....	J. Brizce.....	233,321	Oct. 19	670	184	18	864
Egg-carrier.....	J. T. Fogg.....	223,331	Jan. 6	148	38	17	27
Egg-carrier.....	D. Geodwillie.....	226,168	Apr. 6	23	6	17	750
Egg-carrier.....	D. Geodwillie.....	227,518	May 11	497	142	17	1071
Egg-carrier.....	C. E. Lozier.....	223,235	Jan. 6	33	8	17	8
Egg-carrier.....	W. H. Wolfe.....	227,870	May 18	898	256	17	1145
Egg carrier and crate.....	W. Huey.....	224,436	Feb. 10	535	154	17	311
Egg-holder.....	J. McGlinchy.....	225,530	Mar. 16	653	191	17	589
Egg-tester.....	D. D. Frace.....	227,240	May 4	180	53	17	1007
Egg-tongs.....	R. P. H. Koska.....	227,633	May 18	630	180	17	1103
Eggs. Apparatus for desiccating.....	C. E. Stoddard.....	235,039	Nov. 30	1521	410	18	1268
Eggs. Composition for preserving.....	A. Good.....	225,518	Mar. 16	642	.....	17	587
Eggs. Desiccating.....	H. Halvorson.....	233,750	Oct. 26	1186	.....	18	960
Eggs. Tray for packing.....	N. Schreder.....	235,575	Dec. 14	640	182	18	1396
Ejector. Liquid.....	T. J. Holmes.....	233,248	Oct. 12	556	154	18	838
Ejector. Water.....	L. B. Fulton.....	231,789	Aug. 31	1387	391	18	497
Elastic rollers. Composition for.....	J. Burbridge, R. C. Thorpe, and T. Oakley.....	223,880	Jan. 27	827	.....	17	171
Elbow-joint.....	J. W. Orphy.....	229,331	June 29	1417	388	17	1472
Elbow-pipes. Machine for making.....	M. Pitschner.....	232,368	Sept. 21	601	165	18	638
Elbow-pipes. Roll for.....	P. C. Helder and J. Pfender.....	227,897	May 25	955	274	17	1165
Electric alarm.....	L. F. Fouts.....	234,765	Nov. 23	1174	316	18	1204
Electric alarm and indicator.....	C. H. Carter.....	229,867	July 13	424	117	18	79
Electric apparatus. Dynamo.....	C. F. Brush.....	224,511	Feb. 17	623	181	17	336
Electric brake. Dynamo.....	O. Lugo.....	224,933	Feb. 24	1127	{ 321 322 }	17	434
Electric-circuit closer. Automatic.....	W. H. Shuey.....	235,817	Dec. 21	923	{ 257 258 }	18	1451
Electric circuits. Automatic tension-changer for.....	C. A. Randall.....	227,298	May 4	234	69	17	1017
Electric conductor.....	C. E. Chinnock.....	224,579	Feb. 17	706	201	17	350
Electric-conductor tip.....	J. H. C. Watts.....	230,090	July 13	663	186	13	117
Electric conductor. Underground.....	A. T. Boone.....	225,268	Mar. 9	330	97	17	526
Electric conductors. Supporting-head for compound.....	W. H. Sawyer.....	233,440	Oct. 19	813	224	18	887
Electric current. Apparatus for measuring the.....	J. R. Finney.....	231,415	Aug. 24	946	267	18	421
Electric currents. Regulating.....	C. W. Siemens.....	229,922	July 13	484	135	18	89
Electric light.....	T. A. Edison.....	227,227	May 4	166	49	17	1005
Electric light.....	T. A. Edison.....	227,228	May 4	168	49	17	1005
Electric light.....	T. A. Edison.....	227,229	May 4	169	49	17	1005
Electric light.....	J. E. H. Gordon.....	234,770	Nov. 23	1180	318	18	1205
Electric light.....	A. G. Holcombe.....	233,096	Oct. 12	376	103	18	806
Electric light.....	C. J. Van Depoele.....	224,078	Apr. 27	1122	309	17	962
Electric-light burner.....	J. Sarcia.....	234,618	Nov. 16	991	263	18	1168
Electric-light circuits. Artificial resistance for.....	W. Sawyer.....	228,123	May 25	1210	344	17	1206
Electric-light circuits. Automatic regulator for.....	W. Sawyer.....	230,345	July 20	985	279	18	176
Electric-light circuits. Automatic safety-switch for.....	W. Sawyer.....	230,346	July 20	987	280	18	177
Electric light for burglar-alarms.....	C. E. Buell.....	232,678	Sept. 28	965	265	18	706
Electric-light regulator.....	H. Jacobs.....	233,416	Oct. 19	788	217	18	883
Electric-light regulator.....	M. G. Kellogg.....	229,536	July 6	34	9,10	18	13
Electric-light switch.....	E. R. Knowles.....	227,365	May 11	329	97	17	1043
Electric lights. Apparatus for distributing currents to.....	G. Sweaner.....	234,820	Nov. 23	1249	336	18	1216
Electric lights. Apparatus for treating carbon pencils for.....	W. Sawyer.....	224,612	Feb. 17	749	212	17	356
Electric lights. Carbon for.....	W. E. Sawyer and A. Man.....	229,335	June 29	1421	.....	17	1472
Electric lights. Carbon pencil for.....	J. E. Braunsdorf.....	235,203	Dec. 7	177	48	18	1310
Electric lights or motors. Automatic cut-out apparatus for.....	C. F. Brush.....	234,456	Nov. 16	783	{ 210 211 }	18	1133
Electric lights. Safety-conductor for.....	T. A. Edison.....	227,226	May 4	165	49	17	1005
Electric lighting.....	D. Flanery.....	223,495	Jan. 13	356	95	17	76
Electric-lighting apparatus.....	T. A. Edison.....	224,329	Feb. 10	412	117	17	291
Electric lighting apparatus.....	J. R. Finney.....	234,261	Nov. 9	534	146	18	1084
Electric-lighting apparatus.....	A. J. Martin.....	223,524	Jan. 13	389	104	17	81
Electric-lighting apparatus.....	A. J. Martin.....	232,357	Sept. 21	587	162	18	636
Electric-lighting device.....	G. D. Bancroft.....	235,978	Dec. 28	1147	318	18	1495
Electric-lighting switch.....	W. E. and W. Sawyer.....	235,460	Dec. 14	501	144	18	1373
Electric machine. Dynamo.....	J. E. Braunsdorf.....	226,483	Apr. 13	393	111	17	834
Electric machine. Dynamo.....	S. D. Field.....	223,845	Jan. 27	780	208	17	164
Electric machine. Dynamo.....	W. Hochhausen.....	224,593	Feb. 17	729	207	17	353
Electric machine. Dynamo.....	C. A. Hussey.....	233,350	Oct. 19	705	192	18	869
Electric machine. Dynamo.....	H. S. Maxim.....	228,543	June 8	450	124	17	1309
Electric machine. Dynamo.....	H. S. Maxim.....	228,544	June 8	462	125	17	1359

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Electric machine. Dynamo.....	H. S. Maxim.....	233,942	Nov. 2	131	36	18	1009
Electric machine. Dynamo.....	W. Sawyer.....	227,845	May 18	872	248	17	1140
Electric machine. Dynamo.....	W. Sawyer.....	235,385	Dec. 14	402	113	18	1356
Electric machine. Dynamo.....	E. Thomson.....	233,047	Oct. 5	302	84	18	788
Electric machine. Dynamo.....	E. Thomson and E. J. Houston.....	223,557	Jan. 13	423	113	17	87
Electric machine. Dynamo.....	E. Thomson and E. J. Houston.....	232,910	Oct. 5	138	36	18	761
Electric machine. Dynamo.....	C. J. Van Depoele.....	232,574	Sept. 21	832	231	18	677
Electric machine. Dynamo.....	F. Von Hefner-Alteneck.....	234,353	Nov. 9	636	{ 173 174 }	18	1101
Electric machine. Dynamo.....	E. Weston.....	233,823	Oct. 26	1271	356	18	974
Electric machines. Brush for magneto.....	H. S. Maxim.....	228,546	June 8	464	125	17	1309
Electric machines. Rotating armature for dynamo.....	E. Weston.....	234,443	Nov. 16	770	207	18	1131
Electric motor.....	L. M. Sabin.....	225,724	Mar. 23	885	258	17	639
Electric signal apparatus.....	H. G. Fiske.....	229,529	July 6	26	7	18	12
Electric signal apparatus.....	H. G. Fiske.....	229,990	July 13	557	155	18	101
Electric signaling apparatus.....	E. N. Dickerson, Jr.....	230,696	Aug. 3	116	34	18	265
Electric signaling-instrument.....	W. Hadden.....	231,794	Aug. 31	1393	393	18	498
Electric switch.....	E. J. Molera and J. C. Cebrian.....	230,321	July 20	953	271	18	171
Electric switch.....	W. D. Sawyer and A. Man.....	229,476	June 29	1584	438	17	1495
Electric switch-board.....	J. S. Ross.....	229,757	July 6	283	80	18	50
Electric switch-board.....	T. A. Watson.....	229,345	June 29	1437	396	17	1474
Electric switch-cords. Tip for.....	S. H. Bodfish.....	227,722	May 18	743	208	17	1119
Electric track-circuits. Connector for.....	O. Gassett and I. Fisher.....	227,102	May 4	14	4	17	980
Electric vapor-bath.....	W. D. Hoffman and J. D. Palmer.....	236,030	Dec. 28	1205	333	18	1505
Electrical alarm attachment for pressure-gages.....	J. R. Arnoldi.....	234,902	Nov. 30	1355	364	18	1240
Electrical apparatus. Adjustable armature for.....	T. Cochran.....	235,997	Dec. 28	1166	324	18	1498
Electrical conductor.....	E. U. Parod.....	225,861	Mar. 23	1040	299	17	664
Electrical conductor.....	H. G. Pearson.....	231,085	Aug. 10	564	159	18	346
Electrical conductor.....	E. F. Phillips.....	230,653	Aug. 3	69	19	18	258
Electrical conductors. Induced-current guard for.....	C. E. Chinnock.....	224,580	Feb. 17	708	202	17	350
Electrical indicator.....	C. H. Pond.....	231,970	Sept. 7	120	30	18	543
Electrical indicator and recorder.....	H. F. Thomsen.....	232,156	Sept. 14	327	93	18	586
Electrical indicators. Automatic transmitter for.....	C. H. Pond.....	235,569	Dec. 14	632	180	18	1395
Electrical lighting-circuits. System of.....	C. M. Ball.....	233,831	Nov. 2	3	1, 2	18	987
Electrical machine. Dynamo.....	N. S. Keith.....	228,763	June 15	751	207	17	1362
Electrical machines. Commutator for magneto.....	H. S. Maxim.....	228,545	June 8	463	125	17	1309
Electrical signal.....	C. Cummings.....	235,132	Dec. 7	83	26	18	1295
Electrical switch-board.....	S. Bergmann.....	233,968	Nov. 2	172	44	18	1014
Electrical switch-board.....	P. A. Dowd.....	233,081	Oct. 12	351	96	18	802
Electrical switch-board.....	E. T. Gilliland.....	231,421	Aug. 24	953	269	18	422
Electrical switch-board.....	J. F. Gilliland.....	231,708	Aug. 31	1235	361	18	481
Electrical switch-board.....	J. I. Sabin.....	230,069	July 13	644	{ 179 180 }	18	114
Electrical switch-board.....	J. W. See.....	234,432	Nov. 16	756	203	18	1129
Electrical switch-pin.....	J. H. C. Watts.....	223,969	Jan. 27	933	249	17	188
Electrical visnal indicator.....	C. H. Pond.....	232,415	Sept. 21	656	{ 181 182 }	18	647
Electricity. Lighting cities by.....	H. C. Spalding.....	235,913	Dec. 28	1066	295	18	1482
Electricity. Lighting towns by.....	H. C. Spalding.....	235,914	Dec. 28	1067	296	18	1482
Electro-magnetic motor.....	W. W. Griscom.....	227,622	May 18	619	178	17	1102
Electro-magnetic motor.....	W. W. Griscom.....	227,623	May 18	620	178	17	1102
Electro-magnetic motor.....	J. S. Lamar.....	225,395	Mar. 9	491	143	17	551
Electro-magnetic motor.....	C. A. Randall.....	228,116	May 25	1201	342	17	1205
Electro-magnetic motor.....	L. G. Woolley.....	231,697	Aug. 31	1274	357	18	479
Electro-magnetic-motor brake.....	T. A. Edison.....	228,617	June 8	552	147	17	1322
Electro-magnetic motors. Regulating.....	W. W. Griscom.....	228,688	June 15	902	247	17	1382
Electroplating-frame.....	J. W. Rogers.....	224,478	Feb. 10	578	167	17	318
Electroplating. Holder for.....	R. B. Herskell.....	234,775	Nov. 23	1191	321	18	1207
Electroplating with nickel.....	J. Wharton.....	223,265	Jan. 6	70	.....	17	14
Electrotype and stereotype plates. Uniting.....	C. N. Smith.....	235,034	Nov. 30	1514	408	18	1267
Electrotype-mold.....	E. B. Sheldon.....	228,224	June 1	75	22	17	1239
Elevator: See Barrel, &c., elevator. Ice-elevator. Belt-elevator. Pantaloon-elevator. Floating elevator. Passenger-elevator. Grain-elevator. Portable elevator. Hay-elevator. Stairway-elevator. Hay and grain elevator. Steam and hydraulic elevator. Hod-elevator. Tobacco-elevator. Hydraulic elevator. Wagon-body elevator. Hydropneumatic Water-elevator. elevator.							
Elevator.....	J. B. Atwater.....	235,664	Dec. 21	746	212	18	1421
Elevator.....	P. Baker.....	231,891	Sept. 7	16	3	18	527
Elevator.....	S. H. Bevins and W. H. Phillips.....	224,574	Feb. 17	701	200	17	349
Elevator.....	A. W. Castle and C. U. Akin.....	234,956	Nov. 30	1422	{ 382 383 }	18	1251
Elevator.....	S. B. Conover.....	226,981	Apr. 27	1000	278	17	944
Elevator.....	A. C. Ellithorpe.....	229,982	July 13	547	152	18	99
Elevator.....	G. W. Fitts and L. F. Griffin.....	232,637	Sept. 28	916	252	18	698
Elevator.....	D. Frisbie.....	224,416	Feb. 10	511	146	17	307
Elevator.....	C. H. Golding.....	227,893	May 25	951	272	17	1164
Elevator.....	H. C. Goodrich.....	233,232	Oct. 12	535	149	18	834
Elevator.....	J. A. Groshon.....	224,900	Feb. 24	1095	313	17	429
Elevator.....	J. A. Groshon.....	225,473	Mar. 16	589	171	17	578
Elevator.....	J. H. Kazar.....	229,142	June 22	1195	327	17	1433
Elevator.....	B. B. Keyes.....	226,077	Mar. 30	1315	{ 370 371 }	17	720
Elevator.....	J. Q. Myers.....	227,379	May 11	348	101	17	1045
Elevator.....	C. R. Otis.....	226,100	Mar. 30	1341	378	17	725
Elevator.....	C. R. Otis.....	228,107	May 25	1193	340	17	1203
Elevator.....	C. R. Otis.....	233,794	Oct. 26	1235	343	18	969
Elevator.....	C. R. and N. P. Otis.....	226,673	Apr. 20	633	176	17	873
Elevator.....	W. I. Page.....	228,473	June 8	368	101	17	1293



*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr's	Vol.	Page.
Elevator .....	G. H. Pleasance .....	224,723	Feb. 17	861	246	17	376
Elevator .....	H. W. Sherrill .....	223,397	Jan. 6	211	56	17	39
Elevator .....	A. F. Smith and T. Y. Davidson .....	229,558	July 6	62	17	18	18
Elevator .....	F. Stoddard .....	232,377	Sept. 21	614	168	18	640
Elevator .....	A. K. Snddth and W. L. Canfield .....	231,118	Aug. 10	602	171	18	352
Elevator .....	J. M. Thayer .....	229,203	June 22	1256	345	17	1442
Elevator .....	O. Tufts .....	235,047	Nov. 30	1530	412	18	1270
Elevator .....	B. F. Walters .....	235,597	Dec. 14	664	188	18	1400
Elevator .....	A. J. and R. S. Whittier .....	227,866	May 18	893	{ 254 } 255	17	1144
Elevator and carrier. Combined .....	J. P. Hillard .....	229,703	July 6	219	60	18	40
Elevator and carrier. Combined .....	A. A. Munson .....	225,630	Mar. 16	764	225	17	610
Elevator and fountain .....	A. A. Sandford .....	225,646	Mar. 16	781	229	17	612
Elevator and scales. Combined .....	G. Van Winkle .....	225,893	Mar. 23	1075	307	17	670
Elevator-bucket .....	A. Charles .....	229,235	June 29	1294	356	17	1456
Elevator-bucket .....	C. D. Cowgill .....	228,875	June 15	891	243	17	1381
Elevator-bucket .....	M. Lally .....	233,523	Oct. 19	907	250	18	903
Elevator-cages. Safety attachment for .....	P. Hinkle .....	232,608	Sept. 28	884	244	18	692
Elevator, carrier, and dump. Combined .....	C. A. Baldwin .....	232,433	Sept. 21	682	188	18	651
Elevator-cup .....	O. C. Stafford .....	235,309	Dec. 7	289	81	18	1329
Elevator fan attachment .....	L. Davis .....	227,497	May 11	474	136	17	1067
Elevator for loading and unloading cattle on ship-board .....	H. P. Kirkham .....	227,544	May 11	523	152	17	1075
Elevator for loading and unloading vessels .....	S. A. Bates .....	228,593	June 8	527	141	17	1318
Elevator-gate. Automatic .....	G. Ackermann .....	230,387	July 27	1067	301	18	197
Elevator-gate. Automatic .....	G. Ackermann .....	231,388	Aug. 24	919	259	18	417
Elevator-indicator. Electrical .....	H. C. Bliss .....	234,945	Nov. 30	1404	{ 377 } 378	18	1248
Elevator safety appliance .....	A. H. Hall .....	230,006	July 13	580	160	18	104
Elevator safety attachment .....	D. M. Bissell and F. H. Littlefield .....	226,478	Apr. 13	384	109	17	823
Elevator safety attachment .....	P. J. Schmitt .....	223,455	Jan. 13	304	81	17	67
Elevator safety device .....	H. C. Goodrich .....	226,846	Apr. 27	836	232	17	918
Elevator safety-stop .....	J. G. Gerding .....	235,354	Dec. 14	367	101	18	1350
Elevator safety-stop .....	F. Laufkotter .....	227,799	May 18	824	233	17	1132
Elevators by railway-cars. Device for operating .....	N. Nolan .....	225,158	Mar. 2	201	56	17	491
Elevators. Electrical safety device for .....	W. E. Sawyer .....	229,658	July 6	165	46	18	33
Elevators. Electrical safety device for .....	W. E. Sawyer .....	231,743	Aug. 31	1329	374	18	487
Elevators. Operating .....	R. Dunbar .....	226,047	Mar. 30	1283	361	17	716
Elevators. Safety attachment for .....	D. H. Chamberlain .....	232,455	Sept. 21	711	{ 196 } 197	18	655
Ellipsograph .....	A. T. Lundqvist .....	235,543	Dec. 14	601	171	18	1390
Ellipsograph .....	C. McBean .....	233,424	Oct. 19	795	220	18	885
Embalming .....	S. Rodgers .....	227,654	May 18	656	.....	17	1107
Embalming and preserving animal substances. Process and compound for .....	P. C. Doremus .....	228,519	June 8	431	.....	17	1304
Embroidering-machine .....	E. Cornely .....	228,445	June 8	335	92	17	1290
Emery-cloth .....	F. Copeland .....	224,078	Feb. 3	128	.....	17	224
Emery-cloth .....	F. K. Sibley .....	230,202	July 20	816	.....	18	150
Emery-wheel .....	E. M. Cross .....	235,214	Dec. 7	188	51	18	1312
Emery-wheel .....	G. Hart .....	226,066	Mar. 30	1303	367	17	719
Emery-wheels. Treatment of .....	J. F. Wood .....	227,402	May 11	368	.....	17	1049
Enameling compound .....	G. Russell .....	230,965	Aug. 10	431	.....	18	324
Enameling jewelry, &c .....	F. Kursh .....	227,021	Apr. 27	1048	291	17	952
Enameling or preparing moldings for gilding. Machine for .....	W. Glasgow .....	226,845	Apr. 27	833	{ 231 } 232	17	917
End-board fastening .....	W. P. Lyon and S. Vail .....	230,794	Aug. 3	228	66	18	283
End-board fastening .....	C. F. and E. E. Whipple .....	225,544	Mar. 16	670	196	17	592
End-board fastening for wagons .....	C. B. Hurlbut .....	232,129	Sept. 14	300	85	18	581
End-board for wagon-boxes .....	F. B. Graff .....	223,445	Jan. 13	292	77	17	65
End-board. Wagon .....	H. A. Riggs .....	234,614	Nov. 16	986	262	18	1168
End-board. Wagon .....	L. Van Alstyne .....	234,697	Nov. 23	1100	296	18	1192
End-gate .....	W. Culbertson .....	225,803	Mar. 23	984	282	17	655
End-gate .....	T. Dwyre .....	235,418	Dec. 14	440	124	18	1363
End-gate. Wagon .....	J. Brickett .....	229,029	June 22	1073	293	17	1415
End-gate. Wagon .....	S. D. Fry .....	224,417	Feb. 10	513	146	17	307
End-gate. Wagon .....	J. S. Howey .....	224,914	Feb. 24	1110	317	17	431
End-gate. Wagon .....	G. Jontz .....	224,697	Feb. 17	839	238	17	372
End-gate. Wagon .....	M. Reichert .....	233,280	Oct. 12	591	163	18	843
End-gate. Wagon .....	S. D. Shafer .....	234,149	Nov. 9	396	107	18	1059
Engine:							
See Air-engine. Hydraulic engine. •							
Air-compressing engine. Injector-engine.							
Atmospheric engine. Locomotive-engine.							
Bisulphide-of-carbon engine. Oscillating engine.							
Caloric-engine. Paper-pulping engine.							
Compound engine. Pneumatic engine.							
Cylinder-engine. Portable engine.							
Dental engine. Pulp-engine.							
Direct-acting engine. Pumping-engine.							
Dividing-engine. Reaction and direct-action engine.							
Firo-engine. Road-engine.							
Gas-engine. Rotary engine.							
Gas-motor engine. Rotary steam-engine.							
Hoisting-engine. Steam-engine.							
Hot-air engine. Steam and air engine.							
Hot-air and steam engine. Thermo-dynamic engine.							
Hot-air and steam engine. Traction-engine.							
Hot-air and steam engine. Wind-engine.							
Engine-lubricator .....	J. J. Royle .....	230,066	July 13	641	{ 178 } 179	18	113
Engine-stopping device .....	G. H. Dougherty .....	236,004	Dec. 28	1174	326	18	1500
Engines. Automatic apparatus for stopping .....	G. Ripp and J. Mueller .....	226,553	Apr. 13	475	134	17	837

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & C.	Vol.	Page.
Engravers' tools. Sharpening and preserving the bevels of	W. S. Brower.....	223,315	Jan. 6	128	33	17	23
Engraving-machine	J. Hope.....	225,705	Mar. 23	865	253	17	636
Engraving printing-surfaces	M. Bradley.....	225,457	Mar. 16	568	165	17	575
Envelope	E. O. Bicknell.....	227,721	May 18	742	208	17	1119
Envelope	H. S. Crooke.....	239,923	Nov. 2	108	29	18	1005
Envelope	H. and L. Planche.....	225,864	Mar. 23	1048	299	17	666
Envelope	J. D. Terry.....	225,540	Mar. 16	665	195	17	591
Envelope	K. Tompkins.....	227,077	Apr. 27	1122	309	17	962
Envelope	J. H. Weaver.....	231,875	Aug. 31	1494	419	18	513
Envelope-fastener	A. Dahlem.....	227,961	May 25	1033	294	17	1177
Envelope letter-sheet	A. C. Fletcher.....	228,522	June 8	434	118	17	1304
Envelope-machine	D. M. Lester.....	226,331	Apr. 6	204	60	17	783
Envelope-machine	E. Pittmann.....	235,453	Dec. 14	483	138 139 140 141 142 330 331	18	1371
Envelope-machine	A. A. Rheutan.....	225,947	Mar. 30	1164	331	17	698
Envelope-opener	M. R. Muckl6.....	233,161	Oct. 12	452	124	18	819
Eraser. Blackboard	P. J. Siberling.....	233,378	Oct. 19	739	202	18	875
Erasive rubber	F. H. Holton.....	233,511	Oct. 19	889	245	18	899
Escapement	A. E. Müller.....	231,839	Aug. 31	1443	406	18	506
Evaporating and distilling apparatus. Cooling water for	T. Gannon.....	226,300	Apr. 6	175	51	17	778
Evaporating apparatus. Steam	D. K. Allington.....	255,781	Mar. 23	957	275 276	17	650
Evaporating-furnace	G. W. Russell.....	233,117	Oct. 12	403	111	18	810
Evaporating-pan	H. O. Ames.....	235,613	Dec. 21	692	197	18	1411
Evaporation of liquids. Apparatus for the	O. L. F. Browne.....	235,618	Dec. 21	698	198	18	1412
Evaporator:							
See Fruit-evaporator. Salt-evaporator.							
Evaporator	J. Brockway.....	231,756	Aug. 31	1345	378	18	490
Evaporator	A. L. and A. S. Folger.....	226,395	Apr. 13	280	83	17	807
Evaporator	E. P. Miles.....	232,200	Sept. 14	384	107	18	595
Excavating and dredging machine	R. R. Osgood.....	226,874	Apr. 27	874	243 244	17	924
Excavating and dredging machinery	J. T. Parlour.....	235,563	Dec. 14	626	179	18	1394
Excavating and grading machine	M. Parks.....	230,046	July 13	618	172	18	110
Excavating apparatus. Odorless	F. L. Backhaus.....	232,229	Sept. 14	421	117	18	602
Excavating apparatus. Odorless	A. W. J. Mason.....	231,827	Aug. 31	1433	403	18	504
Excavating. Hydraulic	R. Stone.....	224,309	Feb. 10	391	110	17	287
Excavating-machine	T. Dill.....	227,222	May 4	158	47	17	1003
Excavating-machine	J. T. Dongino.....	225,001	Mar. 2	21	6	17	460
Excavator	L. Adams.....	228,798	June 15	803	219	17	1368
Excavator	H. W. Beldsmeier.....	233,316	Oct. 19	664	183	18	863
Excavator	J. Clark.....	234,851	Nov. 30	1294	348	18	1230
Excavator	S. W. Rohn.....	225,873	Mar. 23	1057	302	17	667
Excavator	W. P. Smith.....	230,358	July 20	1001	283 284	18	179
Excelsior-machine	C. Howes.....	234,475	Nov. 16	808	217	18	1138
Exercising and gymnastic apparatus. Combined portable health	J. H. and C. H. Gifford.....	232,022	Sept. 7	175	46, 47	18	553
Exercising-machine	J. Arnett.....	226,438	Apr. 13	340	97	17	816
Exercising-machine	A. Barker and E. Anderson.....	228,800	June 15	805	220	17	1369
Exercising-machine	D. P. Butler.....	223,798	Jan. 27	723	195	17	155
Exercising-machine	D. P. Butler.....	223,799	Jan. 27	724	196	17	155
Exercising-machine	O. Duplessis.....	223,668	Jan. 20	566	153	17	119
Exercising-machine	J. R. Judd.....	231,431	Aug. 24	965	272	18	424
Exercising-machine	F. Saunders.....	228,277	June 1	144	41	17	1250
Exercising-machine	E. A. Tuttle.....	225,736	Mar. 23	898	261	17	641
Exercising-machine	E. A. Tuttle.....	231,869	Aug. 31	1488	417	18	512
Exercising-machine	E. A. Tuttle.....	232,217	Sept. 14	408	113	18	599
Exercising-machine	J. H. Weeks.....	232,579	Sept. 21	838	233	18	678
Exercising-machines. Extension-handle for	E. A. Tuttle.....	232,218	Sept. 14	409	113	18	600
Exhaust mechanism	J. D. Brown.....	233,835	Nov. 2	10	3	18	988
Expanding-drill	L. F. Pond.....	225,720	Mar. 23	882	257	17	639
Explosive for blasting-charges	W. S. Roscerans.....	230,820	Aug. 3	254	73	18	288
Explosive compound	W. Heick.....	234,871	Dec. 23	1012	.....	18	1473
Explosive compound	C. A. Morse.....	234,489	Nov. 16	824	.....	18	1140
Explosive compound	M. Tschirner.....	232,381	Sept. 21	618	.....	18	641
Explosive compound	R. W. Warren.....	227,601	May 11	593	.....	17	1086
Extension settee-table	M. Gossett.....	229,692	July 6	205	57	18	38
Extension-table	J. D. Brassington.....	223,273	Jan. 6	77	20	17	16
Extension-table	W. Fay.....	234,007	Feb. 3	41	12	17	210
Extension-table	A. B. Hayden.....	228,066	May 25	1150	327	17	1195
Extension-table	A. T. Heymann.....	229,128	June 22	1180	323	17	1431
Extension-table	J. J. McKnight.....	231,437	Aug. 24	971	274	18	425
Extension-table slide	O. S. Garrettson.....	229,037	June 22	1080	295	17	1417
Extinguisher	W. H. Hovey.....	224,539	Feb. 17	656	188	17	342
Extinguisher	E. Mercier.....	226,095	Mar. 30	1336	376	17	724
Extinguishing device	F. E. Dallery.....	225,350	Mar. 9	442	128	17	543
Extractor:							
See Honey-extractor. Tack-extractor.							
Nail-extractor. Tecth-extractor.							
Stump-extractor.							
Eye-protector	P. Johnson.....	234,039	Nov. 2	265	72	18	1029
Eye-shade	W. Lancaster.....	230,556	July 27	1264	357	18	229
Eyebolts. Machine for making	R. H. Briggs and J. H. Dougherty.....	223,472	Jan. 13	328	88	17	71
Eyeglass	H. Borsch.....	235,930	Dec. 28	1091	302	18	1486
Eyeglass	S. Levin.....	232,985	Oct. 5	227	62	18	775
Eyeglass-case	E. J. Hanck.....	232,493	Sept. 21	755	209	18	663
Eyeglass-holder	F. A. Clark.....	235,995	Dec. 28	1165	323	18	1498

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Eyeglass-hook	J. Jenkins	231,051	Aug. 10	526	148	18	339
Eyeglasses	C. N. Dunham	233,738	Oct. 26	1173	326	18	957
Eyeglasses	G. C. Hilpert	233,756	Oct. 26	1193	331	18	961
Eyeglasses	F. Hopkins	235,436	Dec. 14	467	132	18	1367
Eyeglasses	R. Kabus	234,581	Nov. 16	955	253	18	1162
Eyeglasses	A. Landsberg	233,681	Oct. 26	1109	308	18	947
Eyeglasses	J. Schaffer	228,399	June 1	267	75	17	1270
Eyeglasses. Nose-guard for	G. W. Wells	228,146	May 25	1235	351	17	1210
Eyelet	A. Delkescamp	226,289	Apr. 6	162	47	17	775
Eyelet punch and setting machine. Combined	J. P. Wood	228,156	May 25	1246	353	17	1211
Eyelets. Die for making	G. O. Schneller	234,690	Nov. 23	1094	294		
Fabric:							
See Carpet-lining fabric. Knit fabric.							
Felt fabric. Water-proof fabric.							
Fabric-stripping machine	J. Craig	224,656	Feb. 17	795	225	17	364
Fabrics. Device for cutting	F. R. Lewis	232,647	Sept. 28	927	255	18	700
Fabrics. Putting up	J. J. Scholfield	229,759	July 6	286	80, 81	18	51
Fan	N. Allen	226,260	Apr. 6	128	36	17	769
Fan	H. Birckenstadt	229,361	June 29	1457	401	17	1477
Fan	G. Brneck	234,750	Nov. 23	1159	312	18	1202
Fan	H. Clayton	225,346	Mar. 9	438	127	17	543
Fan	F. O. Herstmann	229,415	June 29	1512	417	17	1485
Fan	C. Prahl	235,808	Dec. 21	915	255	18	1449
Fan	M. Rubin	228,394	June 1	262	74	17	1269
Fan	M. Rubin	229,188	June 22	1240	340	17	1440
Fan	M. Rubin	234,813	Nov. 23	1243	334	18	1215
Fan	H. Silberman	235,387	Dec. 14	404	113	18	1356
Fan	E. Suhr and C. Wisc	232,314	Sept. 14	522	145	18	620
Fan. Automatic	J. W. Scott	234,207	Nov. 9	474	129	18	1074
Fan. Automatic	J. Wurznor	226,144	Mar. 30	1390	392	17	733
Fan. Fly	S. W. Lambeth	234,713	Nov. 23	1116	301	18	1195
Fan. Fly	W. O. Lincoln	228,466	June 8	361	98	17	1294
Fan. Fly	S. B. Opdyke	225,413	Mar. 9	512	147	17	555
Fan. Fly	S. G. Stoddard	229,337	June 29	1423	390	17	1472
Fan for forge-fires	A. F. Reineohl	226,247	Apr. 6	113	31	17	766
Fanning-mill	G. Brooks	229,668	July 6	179	49, 50	18	35
Fanning-mill	H. H. Seeley	231,624	Aug. 24	1178	329	18	457
Fanning-mill sieve	E. Harris	227,625	May 18	622	178	17	1102
Fare-box	L. C. Cary	226,158	Apr. 6	11	3	17	748
Fare-box	P. Herdic	228,530	June 8	443	121	17	1306
Fare-box	G. W. Horne	232,719	Sept. 28	1011	278	18	713
Fare-box	W. H. Hornum	225,605	Mar. 16	735	217	17	604
Fare-box	S. R. Ruckel	235,900	Dec. 28	1047	218		
Fare-collecting apparatus. Portable	A. C. Farnsworth	224,770	Feb. 24	945	269	17	405
Fare-collecting apparatus. Portable	A. C. Farnsworth	224,770	Feb. 24	945	270		
Fare-indicator	R. M. Rose	234,811	Nov. 23	1241	334	18	1215
Fare-register	J. Bailey	231,952	Sept. 7	88	23	18	538
Fare-register	J. B. Benton	225,044	Mar. 2	77	22, 23	17	469
Fare-register	J. B. Benton	227,206	May 4	138	40, 41	17	1000
Fare-register	J. B. Benton	229,662	July 6	172	47, 48	18	34
Fare-register	J. B. Benton	230,169	July 20	776	217	18	144
Fare-register	J. B. Benton	231,207	Aug. 17	721	202	18	377
Fare-register	J. B. Benton	233,915	Nov. 2	99	26, 27		
Fare-register	J. B. Benton	234,742	Nov. 23	1150	310	18	1200
Fare-register	J. B. Benton	235,407	Dec. 14	426	120	18	1360
Fare-register	J. B. Benton	235,498	Dec. 14	545	121		
Fare-register	E. Chesterman	226,975	Apr. 27	992	275	17	943
Fare-register	J. N. Hardy	231,165	Aug. 17	665	276		
Fare register and recorder	N. A. Ransom	226,626	Apr. 20	580	162	17	865
Fare register and recorder	N. A. Ransom	226,626	Apr. 20	580	163		
Fare-registers. Operating-connection for	J. B. Benton	227,207	May 4	142	41	17	1001
Farm and garden tool	W. S. Rabb	233,019	Oct. 5	262	72	18	781
Farm-gate	I. Bush	225,686	Mar. 23	840	244	17	632
Farm-gate	J. M. Cheney	233,658	Oct. 26	1087	302	18	943
Farm-gate	J. A. Henry	228,896	June 15	911	249	17	1353
Farm-gate	S. G. Hurlbut	224,915	Feb. 24	1110	317	17	431
Farm-gate	D. C. Kinsell	223,520	Jan. 13	384	102	17	80
Farm-gate	J. S. Padon	223,944	Jan. 27	903	240	17	183
Farm-gate	J. F. Potter	226,102	Mar. 30	1343	379	17	725
Farm-gate	S. Shreffler, Jr.	223,456	Jan. 13	306	81	17	68
Farm-gate	G. Tussing	233,819	Oct. 26	1266	354	18	974
Fastening device	E. F. Miller	228,373	June 1	244	68	17	1266
Fastening device	T. Moore	229,166	June 22	1219	334	17	1437
Fat from animal substances. Apparatus for obtaining	V. Gastard	231,555	Aug. 24	1103	309	18	445
Fats and oils. Purifying	A. W. Winter	233,453	Oct. 19	832		18	890
Faucet	W. C. Coddington	228,038	May 25	1115	317	17	1190
Faucet	T. F. Conklin	223,886	Jan. 27	834	222	17	172
Faucet	W. S. Cooper	232,942	Oct. 5	174	46	18	767
Faucet	P. Doran	228,736	June 15	715	196	17	1357
Faucet	A. Goetzinger	233,670	Oct. 26	1099	306	18	945
Faucet	J. P. Gruber	232,709	Sept. 28	998	275	18	712
Faucet	A. Klier	234,131	Nov. 9	378	103	18	1056
Faucet	D. C. Knight	235,091	Dec. 7	33	11	18	1287
Faucet	C. H. Koetzner	232,894	Oct. 5	120	32	18	758
Faucet	J. Kehler and L. Arnold	231,178	Aug. 17	684	193	18	371
Faucet	A. Moore	223,374	Jan. 6	189	49	17	35
Faucet	P. Motley	232,291	Sept. 14	496	138	18	615
Faucet	P. P. O'Brien and J. F. Splan	229,743	July 6	265	75	18	47
Faucet	J. Quintenz	233,017	Oct. 5	260	72	18	781

## Alphabetical list of inventions—Continued

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Faucet.....	C. C. Redmond and A. W. White.....	224,354	Feb. 10	441	127	17	295
Faucet.....	J. Robertson.....	230,963	Aug. 10	429	123	18	324
Faucet.....	A. E. Spencer.....	228,950	June 15	967	263	17	1392
Faucet.....	R. W. Tavenor.....	231,246	Aug. 17	764	214	18	384
Faucet.....	L. W. Truesdell.....	232,380	Sept. 21	618	170	18	641
Faucet and cap.....	J. B. Hayden.....	224,904	Feb. 24	1100	314	17	430
Faucet and gage-cock. Celluloid-coated.....	R. H. Trested.....	234,823	Nov. 23	1253	337	18	1217
Faucet and waste-valve.....	T. Hanson.....	235,429	Dec. 14	460	130	18	1366
Faucet attachment.....	C. A. Raggio.....	228,219	June 1	69	20	17	1238
Faucet attachment.....	C. A. Raggio.....	234,429	Nov. 16	753	203	18	1129
Faucet attachment and bush.....	J. A. Vallentino.....	224,057	Feb. 3	100	20	17	220
Faucet. Automatic.....	T. H. Walker.....	229,503	June 29	1618	446	17	1499
Faucet. Beer.....	C. C. Redmond and A. W. White.....	226,245	Apr. 6	112	31	17	766
Faucet. Beer.....	C. C. Redmond and A. W. White.....	229,637	July 6	143	40	18	30
Faucet. Drain.....	A. G. Class.....	224,582	Feb. 17	710	202	17	350
Faucet. Filtering.....	W. H. McDonald.....	231,923	Sept. 7	52	13	18	533
Faucet for dispensing mineral waters.....	J. Collins.....	232,003	Sept. 7	157	41	18	549
Faucet for sheet-metal vessels.....	P. Heitzelmau.....	234,710	Nov. 23	1114	300	18	1194
Faucet-hole closer.....	A. Bettridge.....	231,986	Sept. 7	139	36	18	546
Faucet. Lock.....	A. H. Parker.....	233,872	Nov. 2	53	15	18	996
Faucet-lock for beer-coolers.....	A. Heidle.....	228,069	May 25	1155	328	17	1196
Faucet. Measuring.....	W. M. Sack.....	224,108	Feb. 3	159	45	17	229
Faucet. Milk.....	W. J. Van Patten.....	226,213	Apr. 6	77	20	17	759
Faucet. Oil-can.....	J. H. Coleman and G. W. Aldrich.....	229,805	July 13	351	98	18	68
Faucet. Oil-can.....	J. H. Coleman and G. W. Aldrich.....	229,806	July 13	352	98	18	68
Faucet. Rotary measuring.....	D. Drawbaugh.....	229,592	July 6	100	27	18	24
Faucet. Self-closing.....	J. C. Miller.....	228,917	June 15	934	254	17	1387
Faucet-valve.....	L. Brandeis.....	230,173	July 20	781	218	18	145
Faucet. Ventilating.....	B. A. Stevens.....	232,312	Sept. 14	520	145	18	619
Faucet. Water.....	J. Tucker.....	227,598	May 11	589	168	17	1026
Faucets. Registering attachment for.....	W. J. Lane.....	232,277	Sept. 14	460	133 134	18	612
Feather-cleaner.....	D. Bumgardner.....	224,384	Feb. 10	476	136	17	301
Feather-notching machine.....	A. Wemple.....	224,564	Feb. 17	683	195	17	346
Feather-renovator.....	O. S. Crain.....	230,616	Aug. 3	24	7	18	251
Feather-renovator.....	J. C. Hatch and L. H. Fortune.....	235,236	Dec. 7	212	57	18	1316
Feather-renovator.....	O. C. Monroe.....	229,268	June 29	1331	366	17	1461
Feather-renovator.....	J. Shaw.....	223,298	Jan. 6	114	29	17	21
Feather-renovator.....	W. W. Snyder.....	235,710	Dec. 21	802	226	18	1430
Feather-renovator.....	W. R. Sweet.....	231,864	Aug. 31	1476	414	18	511
Feathers for dusters. Machine for preparing.....	C. H. Low.....	225,152	Mar. 2	196	55	17	490
Feathers. Renovating.....	M. R. Ruble.....	224,847	Feb. 24	1037	295 296	17	419
Feed. Automatic boiler.....	N. Curtis.....	231,543	Aug. 24	1087	305	18	442
Feed-bag.....	T. R. Lowerre.....	234,593	Nov. 16	966	257	18	1164
Feed-bag for horses.....	V. H. B. Barrington-Kennett.....	228,537	June 8	450	122	17	1307
Feed-box for animals. Automatic.....	V. M. Blaisdell and C. A. Wright.....	235,499	Dec. 14	550	157	18	1381
Feed-cutter.....	D. S., I. D., and W. D. Heehner.....	234,183	Nov. 9	439	118 119	18	1067
Feed-cutter.....	W. W. Marsden.....	231,826	Aug. 31	1431	402	18	504
Feed for horses and cattle.....	H. H. Beach.....	232,327	Sept. 21	551		18	630
Feed-mill.....	L. J. Caldwell.....	225,562	Mar. 16	690	202	17	596
Feed-rack. Portable grain and hay.....	J. A. Kennedy.....	226,757	Apr. 20	722	201	17	888
Feed-trough for stock.....	J. M. Irwin.....	225,057	Mar. 2	97	27	17	472
Feed-water apparatus.....	C. M. Wilcox.....	226,141	Mar. 30	1368	391	17	733
Feed-water apparatus for steam-boilers.....	H. Bergstrom.....	226,021	Mar. 30	1252	353	17	711
Feed-water apparatus for steam-boilers.....	J. C. Stead.....	226,006	Mar. 30	1235	349	17	708
Feed-water for boilers. Purifying.....	S. J. Hayes, E. T. Jeffery, and H. Schlacks.....	226,068	Mar. 30	1305	368	17	719
Feed-water heater.....	J. H. Annear.....	230,984	Aug. 10	456	130	18	328
Feed-water heater.....	E. Baines.....	234,903	Nov. 30	1357	364	18	1240
Feed-water heater.....	S. M. Fulton.....	232,342	Sept. 21	565	156	18	632
Feed-water heater.....	E. L. Morse.....	228,831	June 15	842	230	17	1374
Feed-water heater.....	I. E. Myrick.....	232,539	Sept. 21	803	222	18	672
Feed-water heater.....	E. Reynolds.....	227,925	May 25	984	262	17	1170
Feed-water heater.....	E. Reynolds.....	228,478	June 8	373	102	17	1296
Feed-water heater.....	J. Rhule, Jr.....	228,930	June 15	947	257	17	1389
Feed-water heater.....	D. P. Stewart.....	232,563	Sept. 21	824	229	18	676
Feed-water heater.....	G. S. Strong.....	226,939	Apr. 27	950	264	17	936
Feed-water heater.....	G. S. Strong.....	227,072	Apr. 27	1116	307	17	961
Feed-water heater and filter.....	J. W. White.....	226,814	Apr. 20	781	217	17	898
Feed-water heater and steam-generator.....	C. D. Smith.....	225,537	Mar. 16	661	193 194	17	590
Feed-water heater for locomotives.....	C. H. Magoon.....	230,190	July 20	801	226	18	148
Feed-water heater for steam-boilers.....	E. Reynolds.....	223,816	Jan. 27	749	200	17	159
Feed-water regulator.....	E. D. Shepardson.....	231,938	Sept. 7	67	17, 18	18	535
Feed-water regulator. Automatic.....	J. E. Bott.....	233,199	Oct. 12	495	136 137	18	827
Feeder. Stock.....	S. E. Licklider.....	231,823	Aug. 31	1428	402	18	503
Feeding cattle. Apparatus for.....	D. A. Snell.....	233,888	Nov. 2	73	19	18	999
Feeding live stock. Device for automatically.....	G. H. Daniels.....	224,278	Feb. 10	354	101	17	281
Feeding-trough.....	J. W. McNeal.....	224,206	Feb. 3	268	77	17	248
Felly-bending machine.....	C. Wright.....	224,758	Feb. 17	899	257	17	383
Felly-boring machine.....	J. G. Peace.....	227,572	May 11	559	160	17	1081
Felly for wheels. Metal.....	H. E. Lambert.....	225,225	Mar. 9	289	82	17	519
Felly-sawing machine.....	S. T. Kennan.....	226,863	Apr. 27	855	237	17	921
Felly. Vehicle-wheel.....	F. W. Starr.....	235,176	Dec. 7	138	40	18	1305
Felt fabrics. Manufacture of wool.....	E. Belknap.....	223,633	Jan. 20	528		17	113
Felting-machine.....	W. Keenan.....	223,357	Jan. 6	172	45	17	31
Felting-machine.....	W. Keenan.....	223,358	Jan. 6	173	45	17	31
Fence.....	W. A. Allen.....	231,640	Aug. 31	1209	339	18	469
Fence.....	L. W. Berger.....	232,440	Sept. 21	692	191	18	653
Fence.....	W. H. Bricker.....	230,734	Aug. 3	156	46	18	272
Fence.....	I. H. Carman.....	224,387	Feb. 10	479	137	17	302

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr's	Vol.	Page.
Fence.....	S. H. Chase.....	235,210	Dec. 7	185	50	18	1312
Fence.....	L. B. Erwin.....	232,250	Sept. 14	450	124	18	607
Fence.....	J. W. Hammett.....	228,891	June 15	905	247	17	1383
Fence.....	D. T. Hazen.....	231,313	Aug. 17	831	233	18	395
Fence.....	H. Hill.....	229,315	June 29	1395	382	17	1469
Fence.....	W. Linville.....	230,559	July 27	1266	357	18	229
Fence.....	J. F. Maris.....	223,368	Jan. 6	182	48	17	33
Fence.....	J. Morton.....	230,645	Aug. 3	60	17	18	256
Fence.....	J. D. Olinger.....	232,540	Sept. 21	804	222	18	672
Fence.....	W. R. Shields.....	234,692	Nov. 23	1096	294	18	1191
Fence.....	T. J. Smith and A. C. Younkin.....	235,709	Dec. 21	802	226	18	1430
Fence.....	B. B. Townsend.....	230,210	July 20	825	234	18	152
Fence.....	J. Vance.....	229,211	June 22	1205	348	17	1443
Fence.....	W. R. White.....	224,621	Feb. 17	759	215	17	358
Fence.....	J. Wintrobe and H. G. Solomon.....	224,501	Feb. 10	602	175	17	322
Fence and fence-post. Wire.....	J. L. Boyer and J. Kinsey.....	226,385	Apr. 13	270	80	17	805
Fence. Barb.....	J. Walsh and J. Dutot.....	223,780	Jan. 20	686	185	17	139
Fence barb and barbed-wire cable.....	G. C. Baker.....	233,832	Nov. 2	5	2	18	987
Fence-barbs. Device for forming.....	A. Henley.....	234,870	Nov. 30	1314	354	18	1234
Fence. Barbed.....	T. G. Orwig.....	225,717	Mar. 23	876	257	17	638
Fence. Barbed-wire.....	T. Shuman.....	234,080	Nov. 2	307	85	18	1037
Fence. Barbed-wire.....	S. Thompson.....	233,713	Oct. 26	1148	320	18	953
Fence-brace.....	J. M. Fleming.....	229,311	June 29	1392	381	17	1469
Fence. Farm.....	T. W. Owens.....	232,750	Sept. 28	1046	287	18	719
Fence-hoister, &c.....	T. B. Jones.....	235,877	Dec. 28	1020	232	18	1475
Fence. Iron.....	J. F. Smith and A. W. Monnsdon.....	223,400	Jan. 6	216	57	17	40
Fence. Iron.....	J. Woodhill and J. O'Gorman.....	224,502	Feb. 10	603	175	17	322
Fence. Iron.....	J. Woodhill and J. O'Gorman.....	230,727	Aug. 3	150	44	18	271
Fence material. Device for cutting barbs on.....	T. V. Allis.....	232,870	Oct. 5	94	25	18	753
Fence. Metallic.....	B. G. Devoe.....	234,256	Nov. 9	525	145	18	1083
Fence. Metallic.....	B. G. Devoe.....	234,257	Nov. 9	527	145	18	1083
Fence. Metallic.....	H. Marsh.....	225,153	Mar. 2	197	55	17	490
Fence nail. Wire.....	E. L. Warren.....	228,236	June 1	93	28	17	1241
Fence. Portable.....	M. Higbee.....	226,403	Apr. 13	295	85	17	809
Fence. Portable.....	H. E. McWhorter.....	230,031	July 13	605	168	18	108
Fence. Portable.....	J. Peabody.....	225,162	Mar. 2	204	57	17	491
Fence. Portable gate.....	F. Villard.....	228,844	June 15	856	233	17	1376
Fence-post.....	H. M. Beecher.....	223,665	Jan. 20	564	152	17	119
Fence-post.....	A. Climie.....	228,037	May 25	1114	317	17	1190
Fence-post.....	W. C. Culbertson.....	226,284	Apr. 6	153	44	17	774
Fence-post.....	W. De Lany.....	235,518	Dec. 14	569	162	18	1384
Fence-post.....	A. B. Hartman.....	224,902	Feb. 24	1098	314	17	429
Fence-post.....	J. H. Helm.....	231,667	Aug. 31	1239	349	18	474
Fence-post.....	W. Markle.....	224,454	Feb. 10	555	159	17	314
Fence-post.....	G. B. McLean and J. Henry.....	233,271	Oct. 12	581	161	18	842
Fence-post.....	T. G. Orwig.....	227,990	May 25	1068	304	17	1183
Fence-post.....	T. G. Orwig.....	233,871	Nov. 2	52	14	18	996
Fence-post.....	S. Reed.....	226,790	Apr. 20	755	210	17	893
Fence-post.....	M. O. Shriver.....	233,564	Oct. 19	955	263	18	911
Fence-post.....	M. O. Shriver.....	233,565	Oct. 19	956	263	18	912
Fence-post and gate-hinge. Combined.....	J. Cunningham.....	229,385	June 29	1481	407	17	1450
Fence. Post and wire.....	W. M. Curry.....	230,925	Aug. 10	388	112	18	317
Fence-post-boring machine.....	K. Freeman.....	227,757	May 18	779	220	17	1125
Fence-post-driver.....	J. Carpenter.....	224,578	Feb. 17	706	201	17	350
Fence-post. Iron.....	G. Rainnie and G. J. A. Robinson.....	233,018	Oct. 5	261	72	18	781
Fence post. Wire.....	G. Ticknor and O. Bebee.....	234,440	Nov. 16	765	206	18	1131
Fence-rods. Blank for barbed metallic.....	T. V. Allis.....	234,936	Nov. 30	1393	374	18	1247
Fence. Toothed-wheel wire.....	J. Stoll.....	230,445	July 27	1145	321	18	209
Fence. Wire.....	J. Rees.....	235,650	Dec. 21	731	208	18	1418
Fence. Wire.....	E. T. Sprout.....	230,077	July 13	652	182	18	115
Fence-wire-barbing machine.....	H. W. Putnam.....	224,351	Feb. 10	437	126	17	295
Fence-wire. Machine for barbing.....	A. Henley.....	232,819	Oct. 5	27	8	18	743
Fence-wire. Machine for manufacturing barbed.....	E. A. Beers and T. W. Eaton.....	227,948	May 25	1012	290	17	1174
Fence-wire. Machine for manufacturing barbed.....	T. W. Eaton.....	227,968	May 25	1040	296	}	1178
Fence-wire. Machine for manufacturing metallic barbed ribbon for.....	A. Cary.....	226,034	Mar. 30	1267	357		
Fence-wire. Spool for barbed.....	E. M. Crandal.....	226,283	Apr. 6	152	43	17	774
Fence-wire stretcher.....	G. S. Manning.....	223,367	Jan. 6	181	47	17	33
Fence-wire stretcher.....	W. A. Murray.....	227,443	May 11	413	120	17	1056
Fence-wires. Applying barbs to.....	E. Children.....	231,272	Aug. 17	791	221	18	338
Fence-wires. Machine for barbing.....	H. Reynolds.....	230,439	July 27	1132	318	18	207
Fences. Barbed wire for.....	H. B. Scutt.....	232,372	Sept. 21	607	166	18	639
Fences. Warning-plate for barbed-wire.....	H. B. Scutt.....	224,482	Feb. 10	582	168	17	318
Fencing. Barb-wire.....	J. E. Stuart.....	230,505	July 27	1209	341	18	219
Fencing. Stretcher for straining metallic.....	J. and W. M. Brinkerhoff.....	224,992	Mar. 2	11	4	17	458
Fender: See Car-window cinder-Cultivator-fender. fender. Fire-place fender.							
Fermenting-casks. Ventilating-valve for.....	H. Guth.....	225,368	Mar. 9	461	134	17	546
Fermenting-vat.....	M. V. Monarch.....	232,746	Sept. 28	1042	285	18	719
Ferric oxide and cupric chloride. Manufacture of.....	J. F. N. Macay.....	234,595	Nov. 16	968	.....	18	1165
Ferrule.....	J. H. Greenleaf.....	229,603	July 6	110	30	18	25
Ferrule for awl-handles.....	J. Steumeyer.....	233,295	Oct. 12	616	170	18	848
Fertilizer.....	B. Johnson and W. P. Giddings.....	234,782	Nov. 23	1200	.....	18	1208
Fertilizer.....	H. M. Pollard.....	232,756	Sept. 28	1053	.....	18	721
Fertilizer and manure distributor.....	J. George.....	230,871	Aug. 10	331	96	18	309
Fertilizer-distributor.....	J. J. and L. F. Burner.....	235,738	Dec. 21	835	234	18	1435
Fertilizer-distributor.....	F. R. Glascock.....	227,762	May 18	785	222	17	1126
Fertilizer-distributor.....	T. A. and A. T. Hill.....	231,801	Aug. 31	1402	395	18	499
Fertilizer-distributor.....	L. A. Horine.....	231,043	Aug. 10	517	146	18	337
Fertilizer-distributor.....	R. B. Sheldon and J. V. Peacock.....	234,079	Nov. 2	305	84, 85	18	1037
Fertilizer-distributor.....	J. W. Spangler.....	233,040	Oct. 5	294	82	18	786
Fertilizer-distributors. Force-feed device for.....	R. B. Sheldon and J. V. Peacock.....	227,998	May 25	1081	307	17	1184



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Fertilizer-drill	J. Taylor	231,374	Aug. 17	894	252	18	405
Fertilizer-dropper	D. B. T. Walton	229,504	June 29	1619	446	17	1500
Fertilizer from stable-manure. Manufacture of an improved	J. H. Chambers	229,955	July 13	519	144	18	94
Fertilizers. Apparatus for preparing	A. Edwards	229,876	July 13	433	119	18	81
Fertilizers. Force-feed distributor for	R. B. Sheldon and J. V. Peacock	226,121	Mar. 30	1366	385	17	729
Fertilizers. Machine for making	G. Janssen and L. Baugh, Jr.	228,641	June 8	581	154	17	1326
Fertilizers. Process and apparatus for the manufacture of	W. Plumer	228,387	June 1	255	72	17	1268
Fiber from pine-leaves, &c. Vegetable	J. G. Stephens	235,310	Dec. 7	290	-----	18	1329
Fiber. Machine for separating and cleaning vegetable	T. Threlfall	235,108	Dec. 7	50	15, 16	18	1289
Fiber. Process and apparatus for manufacturing	J. G. Stephens and F. Darkin	226,801	Apr. 20	766	214	17	895
Fibers, &c. Animal	A. T. Finn and W. S. Archer	235,519	Dec. 14	570	162	18	1385
Fibers from textile plants. Extracting	P. A. A. M. A. Favier	226,506	Apr. 13	426	-----	17	829
Fibers. Separating animal from vegetable	G. M., 2d, and A. L. Rice	235,170	Dec. 7	132	-----	18	1304
Fibers. Treating pine-leaves and other vegetable	G. J. Gregerson	229,248	June 29	1309	-----	17	1458
Fifth-wheel	T. L. Andrews	231,140	Aug. 17	631	179	18	363
Fifth-wheel	W. H. Thurber	233,897	Nov. 2	81	21	18	1000
Fifth-wheel	H. Timken	226,636	Apr. 20	595	166	17	867
Fifth-wheel	J. Wampach	223,782	Jan. 20	689	185	17	139
Fifth-wheel for children's carriages	R. W. Donnayer	235,139	Dec. 7	94	28	18	1297
Fifth-wheel platform	A. H. Beach	231,469	Aug. 24	1005	282	18	431
Fifth-wheel. Vehicle	M. Woodhull	235,325	Dec. 7	308	87	18	1332
Fifth-wheels. Die for swaging blanks for	D. Wilcox	233,128	Oct. 12	416	114	18	813
File and binder	J. A. Austin	233,910	Nov. 2	94	25	18	1002
File. Bill	E. P. Donnell	226,163	Apr. 6	18	5	17	749
File. Bill	J. P. Patterson	223,813	Jan. 27	746	200	17	158
File. Bill	H. E. Roberts	225,025	Mar. 2	49	14	17	464
File. Bill	J. S. Shannon	223,546	Jan. 13	413	111	17	85
File. Bill	G. Thompson	235,394	Dec. 14	412	116	18	1358
File. Bill and letter	L. L. Ferris	226,294	Apr. 6	170	49	17	777
File. Bill and letter	G. V. Nanerth	225,632	Mar. 16	766	225	17	610
File. Bill or letter	D. H. Iseminger	227,112	May 4	23	7	17	982
File-blanks. Die for making half-round	A. Ridal	225,076	Mar. 2	119	34	17	477
File-blanks. Grinding-machine for	C. Vogel	228,574	June 8	500	134	17	1314
File case. Bill	M. Posz	226,349	Apr. 6	226	65, 66	17	787
File-cutting machine	T. T. Prosser	231,094	Aug. 10	574	162	18	347
File for packages of letters	F. W. Sanguinet	224,230	Feb. 3	292	84	17	252
File-handle	C. M. Fairbanks	225,004	Mar. 2	24	7	17	461
File-holder	H. K. Austin	231,890	Sept. 7	15	3	18	526
File-holder	T. B. Pinn	231,355	Aug. 17	876	247	18	402
File. Letter	W. A. Amberg	224,981	Mar. 2	1	1	17	457
File. Newspaper	W. C. Fitch	229,036	June 22	1080	295	17	1416
File. Newspaper	J. W. Hubbard	226,858	Apr. 27	850	236	17	920
File or holder. Bill and letter	T. E. Gould	234,667	Nov. 23	1068	287	18	1187
File. Paper	M. N. Lovell	230,298	July 20	931	264 } 265 }	18	167
File. Paper	W. L. Woods	228,158	May 25	1249	354	17	1212
Filing and binding papers. Device for	I. W. Heysinger	226,402	Apr. 13	293	85	17	809
Filing and packing machine	J. McCrodden	225,940	Mar. 30	1148	326	17	695
Filing box. Letter	A. J. Kletzker	235,090	Dec. 7	32	10	18	1286
Filter	E. Buss	227,954	May 25	1025	293	17	1176
Filter	G. W. Dawson	234,660	Nov. 23	1053	284	18	1185
Filter	G. W. Dawson	234,661	Nov. 23	1055	284	18	1185
Filter	N. Downes	231,480	Aug. 24	1016	286	18	433
Filter	I. T. Green	224,680	Feb. 17	824	233	17	370
Filter	T. Guinean	235,764	Dec. 21	864	241	18	1440
Filter	J. Kroog	231,335	Aug. 17	857	241	18	399
Filter	A. and E. Lister	233,940	Nov. 2	129	35	18	1008
Filter	O. Long	231,066	Aug. 10	542	153	18	341
Filter	B. T. Loomis	232,735	Sept. 28	1026	282	18	716
Filter	G. McCauley and B. J. Cady	231,494	Aug. 24	1033	289	18	435
Filter	D. C. Otis	229,744	July 6	267	75	18	47
Filter	W. A. Pitt	225,863	Mar. 23	1046	299	17	665
Filter	L. R. Sassinet	232,072	Sept. 7	235	65	18	562
Filter	R. F. Scannell and J. E. Lipscombe	226,249	Apr. 6	115	32	17	766
Filter	R. F. Scannell and J. E. Lipscombe	230,347	July 20	988	280	18	177
Filter	J. Willsey and T. Shiverick	228,794	June 15	797	218	17	1368
Filter and cooler. Water	W. C. Chapman and W. B. Miles	235,934	Dec. 28	1094	303	18	1486
Filter. Automatically-reversing	J. A. Crocker	228,986	June 22	1027	280	17	1409
Filter-beds. Duct for	S. T. Williams	231,131	Aug. 10	614	173	18	354
Filter. Cistern	S. Day	231,771	Aug. 31	1360	382	18	493
Filter. Coffee	J. D. Buice	233,598	Oct. 26	1017	283	18	931
Filter. Coffee and tea	T. Fitzgerald, Jr.	234,556	Nov. 16	904	243	18	1154
Filter-paper supporter	J. O. Robertson	229,186	June 22	1238	340	17	1439
Filter-press	C. Furbish	223,333	Jan. 6	149	38	17	27
Filter. Reversible	J. A. Crocker	229,384	June 29	1480	407	17	1480
Filter. Reversible	R. S. Jennings	234,408	Nov. 16	730	197	18	1125
Filter. Reversible	B. T. Loomis	227,800	May 18	825	233	17	1132
Filter. Water	E. Over	235,893	Dec. 28	1039	287	18	1477
Filter. Water	J. Willsey	231,464	Aug. 24	1000	281	18	430
Filtering apparatus	M. Lansburgh	223,741	Jan. 20	639	172	17	131
Filtering apparatus	P. A. Maignen and J. Retif, Fils	234,307	Nov. 9	588	160	18	1093
Filtering liquids. Apparatus for	C. Ross	227,840	May 18	865	246	17	1139
Filtering-press	L. L. Baxley	230,103	July 20	703	197	18	133
Finger-exercising machine	F. L. Becker	232,231	Sept. 14	422	117	18	602
Finger-ring	D. Untermeyer	234,093	Nov. 2	321	69	18	1039
Fire-alarm signal-box. Electric	J. M. Gardiner	232,343	Sept. 21	567	156	18	633
Fire-alarm signal-box. Non-interfering	M. G. Crane and E. Rogers	223,218	Jan. 6	10	3	17	4
Fire-alarm. Telephonic	T. A. Watson	227,141	May 4	65	18, 19	17	988
Fire-arm	D. Smith	230,582	July 27	1291	364	18	234
Fire-arm. Breech-loading	W. H. Baker	228,165	June 1	5	2	17	1228
Fire-arm. Breech-loading	T. D. Bartley	232,919	Oct. 5	151	40	18	763

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Fire-arm. Breech-loading.....	C. H. Eutebrouk.....	230,409	July 27	1096	308	18	201
Fire-arm. Breech-loading.....	G. H. Fay.....	226,505	Apr. 13	424	119	17	829
Fire-arm. Breech-loading.....	W. R. Finch.....	229,035	June 22	1078	{ 294 295 }	17	1416
Fire-arm. Breech-loading.....	W. W. Greener.....	229,604	July 6	111	30	18	25
Fire-arm. Breech-loading.....	C. Guyer.....	226,744	Apr. 20	707	196	17	885
Fire-arm. Breech-loading.....	G. W. Hadley.....	232,816	Oct. 5	24	7	18	742
Fire-arm. Breech-loading.....	D. Hug.....	232,035	Sept. 7	193	52	18	556
Fire-arm. Breech-loading.....	F. Hummel, Sr.....	235,771	Dec. 21	871	243	18	1441
Fire-arm. Breech-loading.....	D. Kirkwood.....	233,256	Oct. 12	564	156	18	839
Fire-arm. Breech-loading.....	D. Kirkwood.....	233,773	Oct. 26	1209	336	18	964
Fire-arm. Breech-loading.....	D. M. Lefever.....	229,429	June 29	1526	421	17	1487
Fire-arm. Breech-loading.....	J. W. Livingston.....	227,907	May 25	965	277	17	1167
Fire-arm. Breech-loading.....	V. Sauerbrey.....	225,168	Mar. 2	209	59	17	492
Fire-arm. Breech-loading.....	V. Sauerbrey.....	225,423	Mar. 9	520	150	17	556
Fire-arm. Breech-loading.....	A. Schneider.....	226,679	Apr. 20	640	178	17	874
Fire-arm. Breech-loading.....	C. Slotterbek.....	233,034	Oct. 5	284	79	18	785
Fire-arm. Breech-loading.....	C. W. Snelder.....	227,135	May 4	55	15	17	987
Fire-arm. Breech-loading.....	L. A. Stave.....	232,214	Sept. 14	404	112	18	599
Fire-arm. Breech-loading.....	W. H. Van Gieson.....	226,893	Apr. 27	896	249	17	927
Fire-arm. Breech-loading.....	J. L. Volkel.....	234,632	Nov. 16	1007	268	18	1171
Fire-arm. Breech-loading.....	H. F. Wheeler.....	233,901	Nov. 2	84	22	18	1001
Fire-arm lock.....	W. H. Baker.....	228,020	May 25	1101	313	17	1187
Fire-arm lock.....	T. G. Bennett.....	223,797	Jan. 27	722	195	17	155
Fire-arm lock.....	A. T. Brown.....	234,749	Nov. 23	1158	312	18	1201
Fire-arm lock.....	A. Johnson.....	233,100	Oct. 12	381	{ 104 105 }	18	807
Fire-arm lock.....	W. W. Wetmore.....	223,662	Jan. 20	558	150	17	118
Fire-arm. Magazine.....	J. M. Berger.....	233,466	Oct. 19	842	232	18	892
Fire-arm. Magazine.....	A. Burgess.....	235,204	Dec. 7	178	48	18	1310
Fire-arm. Magazine.....	B. Burton.....	232,880	Oct. 5	105	28	18	755
Fire-arm. Magazine.....	W. H. Elliot.....	224,522	Feb. 17	635	183	17	338
Fire-arm. Magazine.....	W. H. Elliot.....	225,750	Mar. 23	920	267	17	644
Fire-arm. Magazine.....	W. H. Elliot.....	229,812	July 13	357	100	18	69
Fire-arm. Magazine.....	W. H. Elliot.....	232,178	Sept. 14	360	{ 100 101 }	18	591
Fire-arm. Magazine.....	J. M. Marlin.....	234,309	Nov. 9	591	161	18	1093
Fire-arm. Magazine.....	A. Pease.....	228,778	June 15	773	212	17	1365
Fire-arm. Magazine.....	A. H. Russell.....	230,823	Aug. 3	257	{ 73 74 75 76 }	18	289
Fire-arm. Magazine.....	J. H. Salter.....	232,766	Sept. 28	1064	291	18	722
Fire-arm. Magazine.....	A. Schneider.....	228,560	June 8	484	{ 129 130 }	17	1312
Fire-arm. Magazine.....	W. S. Smoot.....	230,670	Aug. 3	91	26	18	261
Fire-arm. Magazine.....	J. J. Sweeney and W. W. Wetmore.....	223,409	Jan. 6	226	60	17	41
Fire-arm. Magazine.....	F. W. Tiesing.....	226,809	Apr. 20	774	216	17	897
Fire-arm. Magazine.....	F. W. Tiesing and S. V. Kennedy.....	225,664	Mar. 16	799	234	17	615
Fire-arm. Magazine.....	F. W. Tiesing and S. V. Kennedy.....	235,829	Dec. 21	938	{ 262 263 }	18	1454
Fire-arm. Magazine.....	W. Trabue.....	223,414	Jan. 6	232	61	17	42
Fire-arm. Magazine.....	W. Trabue.....	223,660	Jan. 20	557	149	17	118
Fire-arm. Magazine.....	W. W. Wetmore and T. G. Bennett.....	224,366	Feb. 10	457	131	17	298
Fire-arm. Magazine.....	G. E. Williams.....	231,879	Aug. 31	1498	420	18	513
Fire-arm. Revolving.....	W. H. Bell, Sr.....	228,859	June 15	871	238	17	1378
Fire-arm. Revolving.....	J. H. Bullard.....	227,481	May 11	458	131	17	1064
Fire-arm. Revolving.....	P. A. Holter.....	223,645	Jan. 20	538	145	17	115
Fire-arm. Revolving.....	F. W. Hood.....	235,240	Dec. 7	215	58	18	1316
Fire-arm. Revolving.....	B. Merritt.....	233,363	Oct. 19	720	197	18	872
Fire-arm. Revolving.....	G. W. Schofield.....	227,449	May 11	419	122	17	1057
Fire-arm. Revolving.....	A. Swingle.....	224,742	Feb. 17	883	252	17	380
Fire-arm. Revolving.....	D. B. Wesson.....	227,009	May 25	1093	310	17	1186
Fire-arm safety-lock.....	F. Crutchley.....	231,542	Aug. 24	1086	305	18	442
Fire-arm safety-lock.....	J. V. Needham and G. Hinton.....	225,994	Mar. 30	1219	{ 344 345 }	17	706
Fire-arm sight.....	R. F. Cook.....	224,651	Feb. 17	789	223	17	363
Fire-arm sight.....	F. W. and G. Freund.....	229,245	June 29	1302	360	17	1457
Fire-arm sight.....	C. R. Shelton.....	223,251	Jan. 6	54	13	17	12
Fire-arm trigger.....	G. Schalck.....	226,555	Apr. 13	479	134	17	837
Fire-arms. Spring-extractor for.....	F. N. Beebe.....	230,224	July 20	840	238	18	154
Fire-box crown-bar.....	E. Longstreth.....	228,090	May 25	1178	335	17	1200
Fire-engine boiler.....	T. S. La France.....	231,336	Aug. 17	859	241	18	399
Fire-engine. Steam.....	H. F. Shaw.....	224,735	Feb. 17	876	250	17	379
Fire-engines with hydrants, &c. Coupling for connecting.....	D. D. Hayes.....	232,495	Sept. 21	756	209	18	664
Fire-escape.....	T. Bickerton.....	232,234	Sept. 14	426	118	18	603
Fire-escape.....	H. Fuller.....	226,449	Apr. 13	351	100	17	817
Fire-escape.....	E. Kamin and H. Egberts.....	235,252	Dec. 7	227	61, 62	18	1318
Fire-escape.....	R. W. H. Kopp.....	230,555	July 27	1263	356	18	229
Fire-escape.....	G. Lockhart.....	228,822	June 15	831	227	17	1372
Fire-escape.....	F. L. Mitchell.....	233,788	Oct. 26	1226	341	18	967
Fire-escape.....	R. Quintavalle and T. Lindberg.....	234,611	Nov. 16	983	261	18	1167
Fire-escape.....	J. F. Schultheis.....	223,453	Jan. 13	299	79, 80	17	67
Fire-escape.....	L. Taven.....	229,561	July 6	65	18	18	18
Fire-escape.....	F. Tocci.....	233,578	Oct. 19	971	268	18	914
Fire-escape.....	R. H. Tucker.....	227,324	May 4	267	78	17	1022
Fire-escape.....	T. Wherritt.....	234,828	Nov. 23	1260	339	18	1218
Fire-escape.....	C. C. J. Wood.....	227,401	May 11	367	{ 108 109 }	17	1049
Fire-escape ladder.....	F. A. Baker.....	230,459	July 27	1162	327	18	212
Fire-escape ladder.....	A. Cummings and J. H. Harrison.....	233,998	Nov. 2	221	59	18	1022
Fire-escape ladder.....	R. S. Harris.....	231,567	Aug. 24	1116	313	18	447
Fire-escape ladder.....	J. F. H. King.....	228,647	June 8	588	156	17	1327

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Fire-escape ladder.	J. F. H. King.	235,255	Dec. 7	230	62, 63	18	1319
Fire-escape ladder.	E. J. Krause.	236,044	Dec. 28	1224	338	18	1507
Fire-escape ladder.	M. Sichel.	226,798	Apr. 20	764	213	17	895
Fire-extinguisher.	H. Böhle.	223,984	Feb. 3	14	5	17	205
Fire-extinguisher.	A. M. Granger.	224,678	Feb. 17	822	233	17	369
Fire-extinguisher.	A. M. Granger.	233,235	Oct. 12	538	150	18	834
Fire-extinguisher.	F. Grinnell.	231,714	Aug. 31	1293	364	18	482
Fire-extinguisher.	J. Hill.	224,431	Feb. 10	528	152	17	309
Fire-extinguisher.	D. T. Perkins.	231,190	Aug. 17	698	196	18	373
Fire-extinguisher.	M. B. Stafford.	233,570	Oct. 19	963	265	18	913
Fire-extinguisher.	J. W. Stanton.	223,402	Jan. 6	217	58	17	40
Fire-extinguisher.	B. C. Wilson.	235,837	Dec. 21	951	265	18	1456
Fire-extinguisher. Automatic.	C. Barnes.	233,393	Oct. 19	757	293	18	878
Fire-extinguisher. Automatic.	E. Bocker.	230,732	Aug. 3	154	46	18	272
Fire-extinguisher. Automatic.	L. A. Folsom.	228,621	June 8	557	148	17	1322
Fire-extinguisher. Automatic.	F. Grinnell.	231,711	Aug. 31	1229	362 363	18	481
Fire-extinguisher. Automatic.	F. Grinnell.	231,712	Aug. 31	1291	363	18	482
Fire-extinguisher. Automatic.	F. Grinnell.	231,713	Aug. 31	1292	363	18	482
Fire-extinguisher. Automatic.	F. Grinnell.	231,715	Aug. 31	1294	364	18	482
Fire-extinguisher. Automatic.	F. Grinnell.	231,716	Aug. 31	1296	364	18	483
Fire-extinguisher. Chemical.	J. A. Shepard.	224,109	Feb. 3	160	46	17	230
Fire-extinguisher. Chemical.	J. R. Wilson.	231,696	Aug. 31	1271	357	18	479
Fire-extinguisher for cars.	J. Berg.	229,854	July 13	410	113	18	77
Fire-extinguisher for railway-cars.	J. Berg.	226,220	Apr. 6	83	22	17	761
Fire-extinguisher for railway-cars.	J. Berg.	235,847	Dec. 28	988	274	18	1469
Fire-extinguishing apparatus.	J. B. Logan and A. Greenleaf.	226,919	Apr. 27	929	258	17	932
Fire-kindler.	W. W. Branch, Jr.	231,754	Aug. 31	1344	378	18	490
Fire-kindler.	J. T. Elliott.	235,756	Dec. 21	858	239	18	1439
Fire-kindler.	H. Finck.	229,596	July 6	104	28	18	24
Fire-kindlers and fuel. Machine for molding.	M. B. Coburn.	224,996	Mar. 2	15	5	17	459
Fire-kindlers. Machine for making.	A. F. Temple.	226,569	Apr. 13	491	138	17	839
Fire-kindling apparatus.	D. B. Smith.	228,131	May 25	1217	346	17	1207
Fire-kindling stick.	C. Rieger.	236,088	Dec. 28	1270	350	18	1515
Fire-kindlings and machine for manufacturing the same.	H. N. Bill.	229,945	July 13	509	141	18	92
Fire-lighter.	B. Swift.	225,244	Mar. 9	311	88	17	523
Fire-lighter. Automatic.	E. H. Doescher.	230,758	Aug. 3	185	54	18	277
Fire-place.	J. Adair.	230,389	July 27	1069	302	18	197
Fire-place.	J. Adair.	230,390	July 27	1073	302 303	18	198
Fire-place.	J. H. Beard.	224,129	Feb. 3	182	52	17	233
Fire-place attachment.	F. S. Elsberry.	226,992	Apr. 27	1014	281	17	946
Fire-place fender.	J. H. Kizer.	227,545	May 11	525	152	17	1076
Fire-place heater.	R. and J. Logan.	227,171	May 4	97	27	17	994
Fire-place heater.	A. R. Morgan and G. L. Morrison.	234,921	Nov. 30	1376	371	18	1244
Fire-place lining.	J. B. Witherspoon.	232,621	Sept. 28	898	248	18	695
Fire. Protecting iron columns from.	J. McGlensey.	227,985	May 25	1061	302	17	1181
Fire-safe for smoke-houses.	W. E. Johnson.	226,861	Apr. 27	853	237	17	921
Fire-screen.	W. P. Owen.	227,568	May 11	555	159	17	1080
Fire-shield.	M. V. Smith.	233,120	Oct. 12	405	112	18	811
Fire-works.	E. S. Hunt.	229,890	July 13	448	124	18	83
Fire-works. Device for lighting.	E. S. Hunt.	228,760	June 15	746	206	17	1361
Fires. Process of and apparatus for extinguishing.	J. H. Campbell.	234,531	Nov. 16	868	231	18	1148
Fireman's suit.	A. Beyer.	232,233	Sept. 14	424	118	18	603
Fish-cans. Lining for.	L. Lenglet.	232,517	Sept. 21	778	215	18	668
Fish-hook.	J. Irgens.	231,912	Sept. 7	41	9	18	531
Fish-hook wrapper.	G. G. Gregory.	232,706	Sept. 28	995	274	18	711
Fish. Preparing and preserving.	D. W. Davis.	226,390	Apr. 13	275	81	17	806
Fish. Preservation of salted cod.	P. H. Brink.	229,368	June 29	1462	403	17	1478
Fish. Preserving.	C. Maré.	225,938	Mar. 30	1147	326	17	694
Fish. Preserving.	H. Sellman, W. Martin, and A. Balkam.	223,682	Jan. 20	582	156	17	121
Fish. Preserving fresh.	C. Alden.	235,116	Dec. 7	63	19	18	1291
Fisherman's reel.	F. A. Loomis.	235,157	Dec. 7	116	33	18	1300
Fishing-basket. Folding.	F. L. Sheldon.	228,948	June 15	965	262	17	1391
Fishing-flies. Book for carrying.	M. Bray.	228,511	June 8	420	115	17	1302
Fishing-lines. Float and sinker for.	T. H. Chubb.	235,510	Dec. 14	560	160	18	1383
Fishing-lines. Sinker and weight for.	T. M. Foote.	231,417	Aug. 24	950	268	18	421
Fishing-reel.	G. Hancock.	227,000	Apr. 27	1024	233	17	947
Fishing-rod.	J. S. Niswander.	230,650	Aug. 3	67	19	18	257
Fishing-rods. Line-guide for.	F. Richardson.	234,812	Nov. 23	1242	334	18	1215
Fishing-rods. Metallic reel-seat for.	T. H. Chubb.	235,512	Dec. 14	562	160	18	1383
Fishing-rods. Metallic reel-seat for.	T. H. Chubb.	235,513	Dec. 14	563	160	18	1383
Fishing-rods. Reel-fastener for.	T. H. Chubb.	235,511	Dec. 14	561	160	18	1383
Fishway.	W. H. Rogers.	223,936	June 15	953	259	17	1390
Flambeau.	J. A. McCall.	233,425	Oct. 19	796	220	18	885
Flame-regulating device.	F. Koesewitz.	223,678	Jan. 20	579	155	17	121
Flanging-machine.	R. Russell and H. McDonald.	227,061	Apr. 27	1100	304	17	959
Flanging-machine for sweat-bands.	J. C. Hertle.	231,668	Aug. 31	1240	349	18	474
Flask.							
See Molder's flask.							
Flat-iron.	C. F. and W. McCarty.	230,641	Aug. 3	56	16	18	256
Flat-iron heater.	E. W. Harmon.	223,506	Jan. 13	367	98	17	77
Flat-iron heater.	J. Hoffman.	230,777	Aug. 3	205	60	18	280
Flax, hemp, &c. Machine for breaking.	G. Milliken.	234,715	Nov. 23	1119	302	18	1195
Flax, hemp, &c. Machinery for breaking and scutching.	J. Shinn.	233,949	Nov. 2	141	38	18	1010
Fleam.	H. Reinhold and A. Schreiber.	236,084	Dec. 28	1266	349	18	1515
Flier for speeders.	H. S. Josselyn.	227,015	Apr. 27	1038	288	17	950
Float-trap for wash-basins, &c.	J. W. Grows.	235,629	Dec. 21	710	201	18	1414
Floating dumping-platform.	M. Goodwin.	228,058	May 25	1141	325	17	1194
Floating elevator.	P. H. Gill.	231,556	Aug. 24	1104	309 310	18	445

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Flock-cutting machines. Feeder for.....	F. St. George.....	227,315	May 4	256	74	17	1020
Flood-gate.....	C. L. Shaw.....	234,338	Nov. 9	621	169	18	1098
Flood-gate for tile-drains.....	E. M. Heafer.....	233,853	Nov. 2	33	8	18	992
Floor-cloths and fabrics suitable for wall hangings or decorations, and for other uses. Manufacture of	F. Walton.....	231,944	Sept. 7	77	20	18	536
Floor. Fire-proof.....	J. Copcutt.....	226,282	Apr. 6	152	43	17	773
Floors, walls, &c. Covering for.....	G. P. Chiles.....	226,440	Apr. 13	343	-----	17	816
Flooring-clamp.....	W. Douley.....	232,470	Sept. 21	727	202	18	658
Flour and meal chest.....	J. Fishero.....	234,013	Nov. 2	237	64	18	1024
Flour and middlings from the products of crushed or ground wheat. Removing	D. Sewell.....	227,064	Apr. 27	1105	305	17	960
Flour, &c. Apparatus for bolting.....	C. J. Shuttleworth and O. M. Morse.....	225,536	Mar. 16	659	193	17	590
Flour bin and sifter. Combined.....	J. M. Clark.....	226,441	Apr. 13	343	98	17	816
Flour-bolt.....	J. Barkley.....	229,579	July 6	85	23	18	21
Flour-bolt.....	G. D. Gardner and S. D. Randall.....	226,301	Apr. 6	176	51	17	778
Flour-bolt.....	A. J. Terry.....	223,554	Jan. 13	421	113	17	86
Flour bolting and dressing machine.....	H. Seck.....	226,360	Apr. 6	236	69	17	789
Flour-dressing machine.....	G. E. Throop.....	232,379	Sept. 21	616	169	18	641
Flour. Cooling and drying while reducing grain into	V. H. Hallock.....	224,823	Feb. 24	1008	286	17	415
Flour. Manufacture of self-raising.....	H. C. Dart.....	224,998	Mar. 2	18	-----	17	459
Flour-mill dust-separator.....	G. T. Smith.....	223,655	Jan. 20	548	148	17	116
Flour-mills. Collecting and grading dust of flour and grain in	S. L. Bean.....	228,023	May 25	1103	314	17	1187
Flour-mills. Disintegrating apparatus for.....	A. Nagel and R. Kaemp.....	228,669	June 8	606	162	17	1330
Flour-mills. Dust-arrester for.....	J. W. Collins.....	227,957	May 25	1030	294	17	1177
Flour-packer.....	A. W. Straub.....	225,028	Mar. 2	54	15, 16	17	465
Flower and pot. Artificial.....	R. H. Moses.....	226,922	Apr. 27	933	259	17	933
Flower-pot.....	J. A. Conway.....	235,516	Dec. 14	567	161	18	1384
Flower-pot.....	J. E. Pimley.....	231,086	Aug. 10	565	159	18	346
Flue and shield. Chimney.....	A. T. Jackson.....	226,074	Mar. 30	1312	370	17	720
Flue-brush.....	E. G. Felthousen.....	232,118	Sept. 14	289	82	18	579
Flue-cleaner.....	P. W. Lamb.....	232,406	Sept. 21	648	178	18	646
Flue-cleaner.....	H. Le Roy.....	230,139	July 20	744	208	18	139
Flue-cleaner.....	W. G. Williams.....	227,398	May 11	364	107	17	1048
Flue cleaner. Boiler.....	W. S. Levake.....	234,044	Nov. 2	270	73, 74	18	1031
Flue cleaner. Boiler.....	H. E. Parson.....	232,294	Sept. 14	499	139	18	615
Flue-expander.....	C. H. Perkins, C. Strehorn, and P. Dixon.....	233,797	Oct. 26	1237	344	18	969
Flue-stopper.....	J. B. Jewell.....	231,227	Aug. 17	745	209	18	380
Fluid-meter.....	C. A. Chandler.....	226,716	Apr. 20	677	188	17	881
Fluid-meter.....	J. R. Norfolk.....	225,018	Mar. 2	40	12	17	463
Fluid-meter.....	D. P. Weir.....	234,898	Nov. 30	1350	363	18	1240
Fluid-motors. Valve-gear for.....	W. F. Class.....	226,494	Apr. 13	404	{ 114 115 }	17	826
Fluids. Apparatus for effecting interchange of temperatures of	S. H. Rouart.....	224,611	Feb. 17	746	{ 211 212 }	17	356
Fluids. Device for heating.....	C. S. Comins.....	229,098	June 22	1148	314	17	1427
Flush-bolt.....	P. Bradford.....	224,638	Feb. 17	776	219	17	361
Flush-tank.....	G. E. Waring, Jr.....	223,826	Jan. 27	761	203	17	161
Fluted fabrics. Machine for creasing.....	E. Broschmann.....	228,309	June 1	176	49	17	1255
Fluted fabrics. Machine for gathering and pressing.	J. H. Brown.....	225,067	Dec. 7	8	2, 3	18	1282
Fluting-iron.....	W. S. Owen.....	226,776	Apr. 20	739	206	17	891
Fluting-iron.....	F. H. Stumpf.....	226,803	Apr. 20	769	214	17	895
Fluting-machine.....	C. A. Babcock.....	224,323	Feb. 10	407	116	17	290
Fluting-machine.....	C. G. Shepard and P. Adams, Jr.....	223,611	Jan. 13	491	132	17	98
Fluting-machines. Chain of chain.....	W. Walker.....	230,091	July 13	664	186	18	117
Fluxing apparatus.....	H. Miller.....	234,195	Nov. 9	455	123	18	1070
Fly-wheels. Retaining and releasing device for.....	G. S. Rominger.....	226,113	Mar. 30	1357	382	17	727
Flying-machine.....	C. A. Sullivan.....	235,040	Nov. 30	1522	410	18	1268
Fog-horn.....	A. Jaeger.....	229,044	June 22	1069	296	17	1418
Fog-horn for vessels.....	R. Chester.....	235,509	Dec. 14	559	159	18	1383
Foil. Making ornamental metallic.....	H. S. and L. Crooke.....	229,677	July 6	187	52	18	36
Foil. Manufacture of metallic.....	H. S. and L. Crooke.....	227,495	May 11	472	-----	17	1066
Foil. Manufacture of metallic.....	H. S. and L. Crooke.....	227,496	May 11	473	-----	17	1067
Foil. Process and tool for uniting sheets of.....	E. E. Hendrick.....	234,184	Nov. 9	440	119	18	1067
Foil wrapper. Rolled.....	H. S. Crooke.....	229,676	July 6	186	-----	18	36
Folding boat.....	J. W. D. McDonald.....	224,346	Feb. 10	433	124	17	294
Folding boat.....	T. W. B. Murray and C. J. Baker.....	228,470	June 8	364	{ 99 100 }	17	1295
Folding boat.....	T. L. Sturtevant.....	231,117	Aug. 10	601	170	18	351
Folding chair.....	S. G. McCullough.....	226,092	Mar. 30	1332	376	17	723
Folding chair.....	J. T. Mitchell.....	232,742	Sept. 28	1038	284	18	718
Folding chair.....	D. N. Selleg.....	233,880	Nov. 2	60	16	18	997
Folding chair.....	J. L. Styron.....	226,685	Apr. 20	647	180	17	875
Folding chair.....	E. Tucker.....	228,144	May 25	1234	350	17	1209
Folding chair.....	J. E. Wakefield.....	231,513	Aug. 24	1055	296	18	438
Folding chair and pillow-rest. Combined.....	H. J. Buell.....	224,272	Feb. 10	347	100	17	280
Folding chair and settee.....	G. W. Chamberlin.....	223,823	Jan. 27	831	221	17	172
Folding chair and settee.....	J. E. Wakefield.....	225,957	Mar. 30	1178	334	17	700
Folding-machine.....	L. C. Crowell.....	233,994	Nov. 2	205	54, 55	18	1020
Folding-machine.....	L. C. Crowell.....	233,995	Nov. 2	210	{ 55 56 57 58 }	18	1021
Folding-machine.....	L. C. Crowell.....	233,996	Nov. 2	215	58	18	1021
Folding-machine.....	L. C. Crowell.....	233,997	Nov. 2	218	59	18	1022
Folding stand.....	T. W. Freeborn and Z. Chase.....	229,600	July 6	107	29	18	25
Folding table.....	F. F. Atkinson.....	231,252	Aug. 17	772	216	18	385
Food. An article for cattle.....	W. H. Smith.....	233,886	Nov. 2	72	-----	18	999
Food. Cattle.....	B. N. Payne.....	234,718	Nov. 23	1122	-----	18	1196
Foot. Artificial.....	A. A. Marks.....	234,596	Nov. 16	969	258	18	1165
Foot-bath.....	J. S. Hagerty.....	226,063	Mar. 30	1300	366	17	718
Foot-bath.....	H. D. Partridge.....	233,011	Oct. 5	255	70	18	780
Foot-rest and boot-jack. Combined.....	L. C. Boyington.....	231,529	Aug. 24	1072	301	18	440

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr's.	Vol.	Page.
Foot-rest and boot-jack. Combined.....	H. M. Zimmerman and T. N. Clute..	228,581	June 8	508	136	17	1216
Foot-rest, blacking-holder, and boot-jack. Combined.	J. Rees.....	229,053	June 22	1099	299	17	1419
Foot-warmer and lantern. Combined.....	J. J. Towle.....	228,701	June 8	637	173	17	1335
Fore-end stocks. Fastening for.....	C. A. King.....	235,881	Dec. 28	1024	283	18	1475
Forge and steam-boiler. Combined.....	D. E. Engle.....	227,744	May 18	767	216	17	1123
Forge. Blacksmith's.....	M. W. C. Bupp.....	232,174	Sept. 14	354	99	18	590
Forge-fan apparatus.....	J. C. Deubner.....	223,280	Jan. 6	86	21	17	17
Forging eyes on the ends of rods. Die for.....	C. Lanz.....	228,907	June 15	922	251	17	1385
Forging wrench-heads. Die for.....	L. Chapman.....	225,745	Mar. 23	908	264	17	643
Fork:							
See Carving-fork. Manure-fork.							
Coal-fork. Potato-fork.							
Grocer's fork. Saddle-tree fork.							
Hay-fork.							
Fork-blanks. Die for compressing.....	W. W. White.....	232,320	Sept. 14	530	147	18	621
Fork-guard.....	J. F. Dodge.....	227,224	May 4	163	48	17	1004
Form. Adjustable dress.....	J. Hall.....	233,240	Oct. 12	545	151	18	836
Form. Dress.....	J. Hall.....	233,239	Oct. 12	544	151	18	835
Form for garments. Adjustable.....	H. G. Ufford.....	233,173	Oct. 12	467	128	18	822
Foul-air trap for wash-basins.....	J. L. Hutchinson.....	226,519	Apr. 13	441	123	17	831
Fountain:							
See Ink-fountain. Sirup-fountain.							
Pen-fountain. Soda-fountain.							
Printing-machine inking-fountain.							
Fountain.....	J. Storer.....	226,428	Apr. 13	326	93, 94	17	814
Frame:							
See Anode-frame. Ore-crusher frame.							
Awning-frame. Piano-forte action-frame.							
Bed-frame. Picture-frame.							
Bed-canopy frame. Pocket-book frame.							
Car-frame. Pool-ball frame.							
Carriage-dash Saw-frame.							
frame. Slate-frame.							
Electroplating-frame. Spectacle-frame.							
frame. Spinning-frame.							
Grain-rick frame. Tent-frame.							
Grate-frame. Truck-frame.							
Heddle-frame. Vehicle-dash frame.							
Mattress-frame. Window-frame.							
Mosquito-barframe. Window-screen frame.							
Frame.....	T. Wallis.....	224,973	Feb. 24	1168	334	17	440
Friezing-machine.....	G. W. Passell.....	232,365	Sept. 21	599	164	18	637
Fruit and egg carrier.....	L. H. Page.....	234,141	Nov. 9	385	106	18	1058
Fruit and lard press.....	E. D. Greer.....	229,398	June 29	1493	411	17	1482
Fruit and oyster packing can.....	H. L. McAvoy.....	231,922	Sept. 7	52	12	18	533
Fruit and vegetable drier.....	L. Marvin.....	233,157	Oct. 12	448	123	18	818
Fruit and vegetable packer.....	R. Buckingham and C. W. Poindexter.	223,476	Jan. 13	333	89	17	72
Fruit, &c. Apparatus for bleaching.....	O. F. Tiffany.....	225,589	Dec. 14	655	{ 185 186 }	18	1398
Fruit-basket.....	H. B. Crandall.....	225,248	June 1	104	31	17	1243
Fruit-basket crate.....	J. Weed and M. B. Williams.....	233,448	Oct. 19	823	227	18	889
Fruit-crusher.....	J. Lamont.....	229,425	June 29	1521	420	17	1456
Fruit-drier.....	J. H. Burks.....	227,482	May 11	459	132	17	1064
Fruit-drier.....	R. E. Burns.....	234,115	Nov. 9	359	99	18	1053
Fruit-drier.....	S. D. Cherry.....	231,009	Aug. 10	480	136	18	331
Fruit-drier.....	J. W. Clark.....	233,073	Oct. 12	342	94	18	801
Fruit-drier.....	T. E. Curtiss.....	235,342	Dec. 14	353	97	18	1347
Fruit-drier.....	M. J. Dorsett.....	232,697	Sept. 28	986	271	18	709
Fruit-drier.....	G. P. and L. J. Lee.....	234,412	Nov. 16	733	198	18	1126
Fruit-drier.....	W. R. Phillips.....	228,673	June 8	610	164	17	1331
Fruit-drier.....	T. L. and D. L. Riggs.....	234,202	Nov. 9	467	{ 126 127 }	18	1072
Fruit-drier.....	J. M. Rusk.....	236,093	Dec. 28	1274	{ 351 352 }	18	1516
Fruit-drier.....	J. W. Seymour.....	228,561	June 8	486	130	17	1312
Fruit-drier.....	G. Sikes.....	228,787	June 15	785	215	17	1366
Fruit-drier.....	J. B. Sweetland.....	233,298	Oct. 12	619	{ 170 171 }	18	849
Fruit-drier.....	J. M. Teasdale.....	233,643	Oct. 26	1069	297	18	940
Fruit, &c., drier.....	G. G. Stegmann.....	230,207	July 20	822	{ 232 233 }	18	151
Fruit-drier. Domestic.....	H. M. Dake.....	236,000	Dec. 28	1169	325	18	1499
Fruit-drier tray.....	N. O. Tiffany.....	230,507	July 27	1212	341	18	220
Fruit-driers. Air-heater for.....	A. P. Meylert.....	226,183	Apr. 6	44	11	17	753
Fruit. Drying.....	J. W. Cassidy.....	233,473	Oct. 19	851	234	18	893
Fruit-drying apparatus.....	E. G. Boughton.....	231,991	Sept. 7	144	37	18	547
Fruit-drying oven.....	G. W. Holmes.....	232,033	Sept. 7	192	52	18	556
Fruit-evaporator.....	J. B. Sweetland.....	228,953	June 15	969	264	17	1392
Fruit-gatherer.....	J. P. Eddleman.....	223,720	Jan. 20	619	166	17	127
Fruit-gatherer.....	J. N. Jarman.....	225,610	Mar. 16	744	219	17	606
Fruit-gatherer.....	J. M. Kent.....	233,771	Oct. 26	1207	335	18	964
Fruit-gatherer.....	S. Rice.....	224,610	Feb. 17	745	211	17	356
Fruit-gatherer.....	L. J. Knight.....	232,042	Sept. 7	200	54	18	557
Fruit-gathering apparatus.....	L. D. Clairoux.....	235,413	Dec. 14	434	122	18	1362
Fruit-gathering implement.....	R. Hale.....	233,410	Oct. 19	782	215	18	882
Fruit, &c. Hand-press for.....	J. T. Hailo.....	232,029	Sept. 7	187	50	18	555
Fruit in cans. Siruping.....	J. A. Taylor.....	233,895	Nov. 2	79	21	18	1000
Fruit-jar.....	E. M. Erdman.....	226,606	Apr. 20	556	155	17	861
Fruit-jar.....	E. Griswold and J. D. Moran.....	225,752	Mar. 23	925	268	17	645
Fruit-jar.....	J. Murphree.....	233,792	Oct. 26	233	343	18	968
Fruit-jar.....	R. B. Reilay.....	229,638	July 6	144	41	18	30



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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Fruit-jar lifter.....	E. A. Case.....	228,865	June 15	881	240	17	1379
Fruit-jar top.....	J. A. Paul.....	226,779	Apr. 20	742	207	17	891
Fruit-picker.....	I. Combes.....	231,765	Aug. 31	1352	381	18	491
Fruit-picker.....	W. R. Litchfield.....	229,150	June 22	1203	329	17	1435
Fruit-picker.....	J. C. Merine.....	224,936	Feb. 24	1129	322	17	435
Fruit-picker.....	F. M. Taylor.....	231,373	Aug. 17	893	252	18	405
Fruit-picker.....	D. C. Williams.....	224,978	Feb. 24	1173	336	17	441
Fuel.....	W. H. Smith.....	233,884	Nov. 2	69	.....	18	998
Fuel.....	W. H. Smith.....	233,887	Nov. 2	72	.....	18	999
Fuel and fire-kindlers. Compound for.....	J. C. McCarty.....	229,159	June 22	1213	.....	17	1436
Fuel-burning apparatus.....	S. B. King.....	225,223	Mar. 9	285	82	17	518
Fuel-burning apparatus.....	J. Wolstenholme.....	234,448	Nov. 16	775	208	18	1132
Fuel. Combustion of.....	E. J. Brooks.....	225,793	Mar. 23	970	279	17	653
Fuel-economizer.....	R. Newton.....	233,002	Oct. 5	245	67	18	778
Fuel. Feeder for pulverized.....	J. G. McAuley and W. West.....	227,176	May 4	102	29	17	994
Fuel. Process and apparatus for burning pulverized.....	A. Faber du Faur.....	228,334	June 1	202	56	17	1259
Falling and scouring. Process and material for.....	J. W. W. Martin.....	225,154	Mar. 2	198	.....	17	490
Fumes. Apparatus for condensing.....	A. E. Griffiths.....	235,148	Dec. 7	107	31	18	1299
Fumigating compound.....	A. E. Arnold.....	235,487	Dec. 14	531	153	18	1378
Funnel and measure. Combined.....	A. C. Smith and H. W. King.....	228,130	May 25	1217	346	17	1207
Fur-mixer or deviling-machine.....	D. Almond.....	230,164	July 20	773	215	18	143
Furnace:							
See Assay-furnace. Ore-furnace.							
Blast-furnace. Ore-roasting furnace.							
Boiler-furnace. Portable-engine furnace.							
Boiler and other fur- Pottery-furnace.							
nace. Pottery, tile, and glass							
Crucible-furnace. furnace.							
Evaporating-fur- Puddling and boiling fur-							
nace. nace.							
Glass-furnace. Puddling and heating fur-							
Glass-house furnace. nace.							
Glass-melting fur- Reverberatory furnace.							
nace. Roasting and chloridizing							
Heating-furnace. furnace.							
Heating and pud- Sad-iron furnace.							
dling furnace. Smelting-furnace.							
Hot-air furnace. Smoke and gas consuming							
Hydrocarbon-fur- furnace.							
nace. Smoke-consuming fur-							
Iron-melting fur- nace.							
nace. Summer-furnace.							
Metallurgic fur- Tire-heating furnace.							
nace. Tobacco-drying furnace.							
Open-hearth fur- nace.							
Furnace.....	E. Brook.....	230,104	July 20	705	197	18	133
Furnace.....	U. Cummings.....	232,690	Sept. 28	979	270	18	708
Furnace.....	T. M. Fell.....	225,357	Mar. 9	449	131	17	544
Furnace.....	G. B. Field.....	227,888	May 25	945	270	17	1164
Furnace.....	W. Gray.....	233,614	Oct. 26	1033	287	18	934
Furnace.....	C. B. Gregory.....	228,061	May 25	1143	{ 325 } 326	17	1194
Furnace.....	J. H. Irwin.....	227,535	May 11	515	148	17	1074
Furnace.....	C. Levey.....	227,806	May 25	964	{ 276 } 277	17	1166
Furnace.....	A. T. Morley.....	227,989	May 25	1067	{ 303 } 304	17	1182
Furnace.....	H. M. Pierce.....	223,383	Jan. 6	197	52	17	36
Furnace.....	J. Sawyer.....	235,458	Dec. 14	499	144	18	1372
Furnace.....	F. Schaffer.....	235,904	Dec. 28	1052	290	18	1479
Furnace.....	B. F. Smith.....	228,405	June 1	272	76	17	1271
Furnace.....	H. W. Adams.....	227,710	May 18	721	204	17	1116
Furnace and apparatus for smelting ores and con- densing fumes.	S. W. Underbill.....	235,659	Dec. 21	740	211	18	1420
Furnace and boiler.....	L. McKelvey.....	230,958	Aug. 10	423	122	18	323
Furnace-door.....	I. Erickson.....	230,257	July 20	889	252	18	161
Furnace-feeder.....	G. H. Babcock and S. Wilcox.....	224,626	Feb. 17	764	216	17	359
Furnace fire-door.....	W. Hewitt and J. Withington.....	226,853	Apr. 27	846	{ 234 } 235	17	919
Furnace for annealing wire, &c.....	A. Moore.....	234,318	Nov. 9	600	163	18	1095
Furnace for burning chaff, &c.....	A. M. McGee.....	230,955	Aug. 10	420	121	18	322
Furnace for heating bolt-blanks.....	W. D. Allen.....	234,162	Nov. 9	410	{ 111 } 112	18	1062
Furnace for heating ingots, blooms, &c.....	H. J. Huttner.....	234,985	Nov. 30	1457	392	18	1258
Furnace for roasting quicksilver ores.....	W. Gillespie.....	225,590	Mar. 16	718	211	17	602
Furnace-grate.....	A. Kohlhofer.....	225,146	Mar. 2	190	53	17	489
Furnace-grate.....	B. P. Perry.....	227,124	May 4	37	11	17	984
Furnace-grate bar.....	J. L. L. Knox.....	229,319	June 29	1399	383	17	1470
Furnace-grate. Steam-boiler.....	J. P. Kimball.....	227,542	May 11	522	151	17	1075
Furnace, &c., lining.....	E. F. Althaus, O. Junghann, and H. Ulsmann.....	234,737	Nov. 23	1145	.....	18	1199
Furnace-linings, converter-bottoms, tuyeres, &c.							
Fire-proof compound for							
Furnace-shield.....	H. McDonald.....	226,181	Apr. 6	40	10	17	753
Furnace-shield.....	H. McDonald.....	228,548	June 8	467	126	17	1310
Furnace-shield.....	H. McDonald.....	228,549	June 8	468	126	17	1310
Furnaces. Apparatus for promoting combustion in.....	J. Mahony.....	231,232	Aug. 17	751	210	18	381
Furnaces. Device for feeding air to.....	H. T. Drain, J. McClung, and E. G. Penrose.....	226,603	Apr. 20	552	154	17	860
Furniture joint. Metallic.....	A. M. Eastman.....	230,254	July 20	887	252	18	160
Furniture-packing fastener.....	I. Schlesinger.....	229,055	June 22	1101	299	17	1419
Fuse. Electric.....	H. J. Smith.....	225,173	Mar. 2	216	60	17	493
Fuse for explosive projectiles.....	J. A. Brand.....	223,312	Jan. 6	125	32	17	23
Gaff-topsail rigging.....	F. B. Cert.....	234,755	Nov. 23	1164	314	18	1203

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Gag-runner .....	R. W. Jones .....	225,391	Mar. 9	484	141	17	550
Gage:							
See Boring-bit gage. Press-gage.							
Carpenter's gage. Railway and tramway							
Cutter-head-setting gage. Saw-gage.							
Low-water gage. Sewing-machine quilting-							
Marking and slit- gage.							
ting gage. Sluiceway-gage.							
Measuring and mix- Surface-gage.							
ing gage. Track-gage.							
Micrometer-gage. Water-gage.							
Plane-gage. Weatherboard-gage.							
Plow-gage.							
Gaiter clasp or fastening .....	C. Riese .....	230,498	July 27	1204	339	18	218
Gaiters. Distender for .....	J. F. Franta .....	231,706	Aug. 31	1283	360	18	480
Galvanic battery .....	R. C. Anderson .....	223,212	Jan. 6	2	1	17	3
Galvanic battery .....	J. H. Cheever .....	233,601	Oct. 26	1019	283	18	932
Galvanic battery .....	J. Doyle .....	224,404	Feb. 10	497	143	17	304
Galvanic battery .....	M. A. Hardy .....	229,122	June 22	1173	321	17	1430
Galvanic battery .....	G. L. Leclanché .....	234,413	Nov. 16	735	198	18	1126
Galvanic battery .....	W. V. Lockwood .....	227,801	May 18	825	.....	17	1132
Galvanic battery .....	W. Maynard .....	224,343	Feb. 10	430	123	17	293
Galvanic battery .....	R. Schlumberger .....	227,448	May 11	418	121	17	1057
Galvanic battery .....	F. Tommasi .....	227,076	Apr. 27	1120	308	17	962
Galvanic-battery case .....	J. H. C. Watts .....	227,865	May 18	893	254	17	1144
Galvanic-battery cell .....	G. A. Converse .....	224,328	Feb. 10	411	117	17	291
Galvanic battery. Portable .....	S. H. Bartlett .....	228,972	June 22	1012	275	17	1407
Galvanic battery. Portable .....	S. H. Bartlett .....	228,973	June 22	1013	275	17	1407
Galvanic ring .....	E. A. Osselin and A. Meyer .....	230,194	July 20	806	227	18	149
Game .....	J. Chambers .....	235,209	Dec. 7	184	50	18	1311
Game apparatus .....	A. Christie .....	235,993	Dec. 23	1163	323	18	1498
Game apparatus .....	W. B. Cowan .....	224,882	Feb. 24	1075	308	17	425
Game apparatus .....	S. J. Delan .....	232,394	Sept. 21	632	174	18	643
Game apparatus .....	E. C. Edmonds .....	232,016	Sept. 7	170	44	18	552
Game apparatus .....	M. T. Foote .....	227,159	May 4	86	23	17	991
Game apparatus .....	E. Greay .....	230,000	July 13	573	159	18	103
Game apparatus .....	A. N. Kellogg .....	230,947	Aug. 10	410	118	18	321
Game apparatus .....	N. C. Larsen .....	236,047	Dec. 28	1227	339	18	1508
Game apparatus .....	J. Miles .....	225,407	Mar. 9	506	146	17	554
Game apparatus .....	C. A. L. Totten .....	227,931	May 25	991	284	17	1170
Game apparatus .....	G. Wunderlich .....	229,791	July 6	323	89	18	55
Game apparatus .....	F. C. Zanetti .....	226,145	Mar. 30	1391	392	17	733
Game apparatus for lawn-bowling .....	E. W. Haines .....	232,606	Sept. 28	881	244	18	692
Game apparatus or sectional checker-board .....	H. Luers .....	231,963	Sept. 7	113	28	18	542
Game-board .....	J. K. Ingalls .....	226,615	Apr. 20	567	158	17	863
Game-board .....	P. Lawrence .....	235,951	Dec. 28	1116	308	18	1490
Game-board .....	J. W. Thompson .....	229,206	June 22	1200	346	17	1443
Game-board .....	D. L. Wileox .....	233,055	Oct. 5	312	86	18	789
Game-counter .....	N. C. Cooley .....	231,406	Aug. 24	935	264	18	419
Gangway and life-raft. Combined .....	J. E. Barstow .....	235,987	Dec. 28	1157	321	18	1497
Garbage-receptacle .....	V. Borst .....	224,636	Feb. 17	773	219	17	360
Garden and lawn rake. Combination .....	L. B. Belknap .....	227,951	May 25	1020	292	17	1175
Gardeu implement .....	W. J. Hosack .....	228,638	June 8	579	153	17	1325
Garden-rake. Cast-steel .....	C. T. Becbe .....	227,473	May 11	450	129	17	1063
Garden-rakes. Machine for making .....	G. Banister .....	226,898	Apr. 27	901	250	17	928
Garment-supporter .....	G. H. Phelps .....	232,413	Sept. 21	655	180	18	647
Garment-supporter .....	S. H. Whitcomb .....	234,932	Nov. 30	1389	373	18	1246
Gas and generating steam. Combined apparatus for	J. H. Needles .....	231,344	Aug. 17	867	244	18	401
producing illuminating-							
Gas apparatus .....	H. S. Maxim .....	228,547	June 8	465	125	17	1309
Gas apparatus .....	J. C. Noonau and G. W. Young .....	234,198	Nov. 9	459	124	18	1071
Gas apparatus .....	J. S. Wood .....	228,848	June 15	859	235	17	1376
Gas. Apparatus for administering nitrous-oxide .....	G. H. Hurd .....	234,672	Nov. 23	1073	289	18	1188
Gas. Apparatus for enriching .....	J. Livesey, J. and J. Kidd .....	227,547	May 11	526	153	17	1076
Gas. Apparatus for enriching .....	J. Livesey, J. and J. Kidd .....	227,548	May 11	527	153	17	1076
Gas. Apparatus for enriching .....	J. Livesey and J. Kidd .....	227,549	May 11	528	153	17	1076
Gas. Apparatus for enriching and economizing coal-	G. T. Strong .....	225,435	Mar. 9	534	153	17	558
Gas. Apparatus for generating hydrocarbon illumi-	W. P. Patton .....	235,451	Dec. 14	485	137	18	1370
nating and heating							
Gas. Apparatus for making illuminating .....	W. H. Douglass .....	227,562	May 11	479	137	17	1068
Gas. Apparatus for producing hydrogen .....	E. E. Egasse .....	229,034	June 22	1077	294	17	1416
Gas. Apparatus for the manufacture of .....	H. Y. Attrill and W. Farmer .....	224,320	Feb. 10	403	{ 114 115 }	17	289
Gas. Apparatus for the manufacture of wood and oil.	G. Ramsdell .....	224,845	Feb. 24	1035	295	17	419
Gas. Apparatus for the manufacture of wood and oil.	G. Ramsdell .....	230,657	Aug. 3	74	20, 21	18	258
Gas. Apparatus for the purification of coal .....	A. Klönne .....	231,177	Aug. 17	680	192	18	371
Gas-burner .....	J. F. Barker .....	231,256	Aug. 17	776	217	18	386
Gas-burner .....	J. S. Ford .....	233,609	Oct. 26	1027	286	18	933
Gas-burner .....	H. W. Merritt .....	229,444	June 29	1543	425	17	1489
Gas burner and regulator. Self-extinguishing .....	W. H. Hovey .....	227,436	May 11	406	118	17	1054
Gas-burner indicator .....	J. Manuel .....	235,545	Dec. 14	603	172	18	1390
Gas-burner. Multiple .....	A. M. Silber .....	229,765	July 6	296	82	18	52
Gas-burners by automatic means. Apparatus for	W. Effer .....	236,010	Dec. 28	1183	327	18	1501
lighting and extinguishing							
Gas-burners. Electric lighting attachment for .....	C. H. Hinds .....	235,769	Dec. 21	868	243	18	1441
Gas by electricity. Apparatus for lighting .....	E. N. Dickerson, Jr. .....	234,662	Nov. 23	1056	284	18	1186
Gas-cleaning apparatus .....	M. Kennedy .....	228,765	June 15	756	208	17	1362
Gas-engine .....	E. Buss .....	226,972	Apr. 27	987	274	17	942
Gas-engine .....	L. Durand .....	232,808	Oct. 5	14	4	18	741
Gas-engine .....	C. Linford .....	232,987	Oct. 5	229	63	18	776
Gas-engine .....	A. K. Rider .....	233,804	Oct. 26	1245	{ 346 347 }	18	970
Gas-engine .....	W. Wittig and W. Hees .....	225,778	Mar. 23	933	274	17	649

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & G.	Vol.	Page.
Gas-extinguisher. Automatic	T. W. Hamilton	224,776	Feb. 24	953	271	17	406
Gas-fixtures. Smoke-bell support for	G. S. Roberts	230,060	July 13	635	177	18	112
Gas for heating and illuminating purposes. Process and apparatus for manufacturing	H. Y. Attrill and W. Farmer	224,266	Feb. 10	338	97, 98	17	279
Gas from hydrocarbon liquid and water. Apparatus for making illuminating-	E. B. Holmes	231,423	Aug. 24	956	270	18	422
Gas-generator	T. Van Kannel	233,956	Nov. 2	151	40, 41	18	1012
Gas-generator for hydrocarbon-furnaces	A. E. Watkins	229,344	June 29	1434	{ 395 396 }	17	1474
Gas. Generator for producing carbureted water-	J. D. Averell	226,472	Apr. 13	376	107	17	821
Gas-generators, acid-chambers, and fountains for mineral waters. Lining	J. Collins	231,540	Aug. 24	1084	.....	18	442
Gas-governor	L. P. Blair	226,479	Apr. 13	385	109	17	823
Gas-governor	J. A. Wilson	233,451	Oct. 19	830	229	18	890
Gas-lighting apparatus. Electric	G. D. Bancroft	235,979	Dec. 28	1148	319	18	1495
Gas-lighting apparatus. Electric	G. F. Pinkham, J. P. Tirrell, and W. S. Hill	230,567	July 27	1274	359	18	231
Gas-lighting apparatus. Electric	F. V. Sandford	232,304	Sept. 14	511	143	18	617
Gas-lighting apparatus. Electric	J. P. Tirrell	230,589	July 27	1300	366	18	235
Gas-lighting apparatus. Electric	J. P. Tirrell	230,590	July 27	1303	366	18	236
Gas-lighting apparatus. Electric	J. P. Tirrell	232,661	Sept. 28	945	260	18	703
Gas-lighting burner. Electric	D. Rousseau	235,024	Nov. 30	1502	404	18	1265
Gas-lighting device. Electric	T. Cailtean	223,578	Jan. 13	453	123	17	92
Gas-lighting device. Electric	H. F. Packard	225,071	Mar. 2	113	32	17	475
Gas-machine	A. Henning	232,715	Sept. 28	1006	277	18	713
Gas-making apparatus	C. F. Dieterich	234,546	Nov. 16	890	{ 238 239 }	18	1152
Gas. Making illuminating-	T. J. F. Regan	228,392	June 1	261	73	17	1269
Gas. Manufacture of nitrogen	T. B. Stillman	225,730	Mar. 23	893	.....	17	640
Gas. Manufacture of nitrogen	T. B. Stillman	226,632	Apr. 20	590	.....	17	866
Gas-meter	A. Carpenter	228,513	June 8	423	115	17	1303
Gas-meter	T. C. Hopper	227,783	May 18	807	228	17	1129
Gas-meter	L. L. Treman	233,645	Oct. 26	1072	298	18	940
Gas-meters. Automatic safety-valve and seal-lock for	M. Shea	224,736	Feb. 17	877	250	17	379
Gas-motor. Differential	C. M. T. Du Motay and L. F. Beckwith	223,555	Jan. 13	421	113	17	87
Gas-motor engine	D. Clerk	230,470	July 27	1171	331	18	213
Gas-motor engine	G. W. Daimler	232,243	Sept. 14	443	122	18	605
Gas or fluid meters. Price-indicator for	F. Egner	226,292	Apr. 6	168	48	17	776
Gas or vapor burner	C. F. Burnap	233,065	Oct. 12	334	93	18	800
Gas-pressure regulator	J. M. Foster	227,234	May 4	176	51	17	1006
Gas-pressure regulator	P. Noyes	234,421	Nov. 16	742	201	18	1127
Gas-pressure regulator and indicator	F. W. Wiesebeck	227,867	May 18	894	255	17	1144
Gas. Process and apparatus for accelerating the distribution of	C. M. T. Du Motay and E. Stern	224,311	Feb. 10	394	111	17	288
Gas. Process and apparatus for manufacturing	M. S. Frost	226,397	Apr. 13	284	84	17	807
Gas. Process and apparatus for manufacturing hydrogen	C. M. T. Du Motay	229,339	June 29	1428	{ 391 392 390 391 }	17	1473
Gas. Process and apparatus for producing hydrogen	C. M. T. Du Motay	229,338	June 29	1424	{ 391 392 390 391 }	17	1472
Gas. Process of and apparatus for generating	E. J. Jerzmanowski	233,860	Nov. 2	41	11	18	993
Gas. Process of and apparatus for making illuminating-	E. J. Jerzmanowski	233,862	Nov. 2	43	12	18	994
Gas. Process of and apparatus for manufacturing	M. W. Kidder	236,039	Dec. 28	1217	{ 335 336 }	18	1506
Gas. Process of and apparatus for manufacturing illuminating-	A. O. Granger and J. H. Collins, Jr.	234,400	Nov. 16	719	194	18	1123
Gas-producer	A. Faber du Faur	225,813	Mar. 23	995	{ 285 286 393 394 }	17	656
Gas. Production of hydrogen	C. T. Du Motay	229,340	June 29	1429	{ 391 392 390 391 }	17	1473
Gas-regulating burner	G. J. Hickey	229,409	June 29	1506	415	17	1484
Gas-regulator	J. B. Cox	232,943	Oct. 5	175	46	18	767
Gas-regulator	P. Keller	228,079	May 25	1165	332	17	1198
Gas-regulator	J. B. Tiffany	233,048	Oct. 5	305	84	18	788
Gas-regulator	M. G. Wilder	223,570	Jan. 13	447	120	17	91
Gas-regulator	M. G. Wilder	230,846	Aug. 3	290	83	18	295
Gas-retorts. Apparatus for indicating the action of water-	H. C. Bowen	224,865	Feb. 24	1055	301	17	422
Gas-retorts. Determining the temperature and progress of distillation in	H. C. Bowen	224,866	Feb. 24	1057	301	17	422
Gas-retorts. Regulator for exhausters of	F. Egner	230,699	Aug. 3	119	35	18	266
Gas-retorts with hydrogen oils. Charging	A. Riebeck	226,001	Mar. 30	1229	.....	17	708
Gas-tap Regulating	J. C. Ainsworth and R. K. Roberts	223,573	Jan. 13	450	121	17	91
Gasalier. Ventilating-	J. P. Putnam	233,372	Oct. 19	731	200	18	674
Gasoline-burner	W. C. North	227,701	May 18	712	201	17	1115
Gate: See Automatic gate. Hatchway-gate. Bridge-gate. Hatchway safety-gate. Car-platform gate. Iron gate. Double gate. Pivot-gate. Drain-tile gate. Railway and farm gate. Elevator-gate. Railway cattle-gate. End-gate. Sliding gate. Farm-gate. Swinging gate. Flood-gate. Turbine gate.							
Gate	L. P. Allen	234,515	Nov. 16	851	227	18	1145
Gate	L. C. Anderson	231,951	Sept. 7	87	23	18	538
Gate	G. H. Aylworth	226,695	Apr. 20	656	182	17	877
Gate	J. V. Baird	235,489	Dec. 14	532	153	18	1378
Gate	C. W. Barnes	230,165	July 20	773	{ 215 216 }	18	143
Gate	J. M. Bean	228,436	June 8	327	89, 90	17	1289
Gate	J. Beczley	234,740	Nov. 23	1148	309	18	1200

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Gate .....	G. and A. D. Breon and F. M. Nixon.	233,724	Oct. 26	1159	322	18	955
Gate .....	E. M. Burt.	230,609	Aug. 3	12	3	18	249
Gate .....	W. Butterworth.	224,643	Feb. 17	781	221	17	362
Gate .....	E. J. Clark.	228,314	June 1	182	51	17	1256
Gate .....	J. Crites.	234,249	Nov. 9	519	143	18	1082
Gate .....	A. F. Denlinger.	229,974	July 13	538	150	18	98
Gate .....	M. C. Doolittle.	225,512	Mar. 16	635	165	17	586
Gate .....	H. H. Franks.	227,161	May 4	88	24	17	992
Gate .....	J. E. Garrett.	230,542	July 27	1249	352	18	227
Gate .....	W. W. Goodwin.	231,907	Sept. 7	36	8	18	530
Gate .....	J. H. Greenhow.	230,477	July 27	1181	333	18	215
Gate .....	R. M. Grier.	231,560	Aug. 24	1108	311	18	446
Gate .....	D. B. Hamilton.	234,471	Nov. 16	803	215	18	1137
Gate .....	R. E. Harbaugh and S. R. Owen.	232,711	Sept. 28	1000	{ 275 276 }	{ 18 18 }	{ 712 712 }
Gate .....	E. J. Hart.	235,358	Dec. 14	371	102	18	1351
Gate .....	P. E. Heck.	232,181	Sept. 14	367	102	18	592
Gate .....	J. Hollinger and J. Flinner.	229,412	June 29	1509	416	17	1484
Gate .....	F. W. Lamb.	229,147	June 22	1200	329	17	1434
Gate .....	F. J. Lee.	230,951	Aug. 10	415	120	18	322
Gate .....	B. F. Luce.	225,841	Mar. 23	1019	293	17	660
Gate .....	J. C. Mendeuhall.	224,100	Feb. 3	151	43	17	228
Gate .....	A. B. Minton.	230,034	July 13	607	169	18	108
Gate .....	C. B. Morgan.	231,968	Sept. 7	118	30	18	543
Gate .....	W. Robinson.	231,617	Aug. 24	1171	327	18	456
Gate .....	N. Scarritt.	236,094	Dec. 28	1276	352	18	1516
Gate .....	K. A. Scott.	234,619	Nov. 16	992	264	18	1169
Gate .....	D. Sheets.	223,642	Oct. 26	1069	297	18	940
Gate .....	S. Small.	235,464	Dec. 14	507	146	18	1374
Gate .....	S. Small.	236,099	Dec. 28	1287	354	18	1518
Gate .....	S. S. Speicher.	231,244	Aug. 17	762	213	18	383
Gate .....	W. H. Tobey.	230,087	July 13	661	185	18	117
Gate .....	J. T. and O. G. Wagers.	225,086	Mar. 2	130	37	17	479
Gate .....	W. S. Wilkinson.	230,909	Aug. 10	374	108	18	315
Gate .....	D. H. Wolfe.	228,966	June 15	983	267	17	1394
Gate-closer .....	C. D. Sawyer.	231,107	Aug. 10	588	167	18	350
Gate-closing device .....	J. Köhnmann.	227,794	May 18	819	232	17	1131
Gate-hanger .....	J. C. Baumgartner.	231,467	Aug. 24	1003	282	18	430
Gate-hanger .....	F. Cook.	226,980	Apr. 27	999	277	17	944
Gate-hanger .....	J. G. Laird.	229,148	June 22	1201	329	17	1434
Gate-hanger .....	W. A. Sharpe.	228,785	June 15	783	214	17	1366
Gate-pivot .....	F. N. Still.	228,951	June 15	968	263	17	1392
Gate-roll .....	S. E. Mallett.	233,529	Oct. 19	914	251	18	904
Gate-roller .....	F. W. Holbrook.	228,354	June 1	218	62	17	1262
Gate roller and hinge .....	J. Conrad.	233,476	Oct. 19	854	235	18	894
Gates. Apparatus for opening hinged .....	H. Allen.	228,013	May 25	1095	311	17	1186
Gear. Friction .....	L. Biscaccianti.	230,884	Aug. 10	346	100	18	311
Gear. Stop-motion .....	P. F. Hodges.	223,806	Jan. 27	734	198	17	157
Gearing .....	J. S. Worth.	232,586	Sept. 21	846	235	18	680
Gearing. Cog .....	R. H. McNair.	232,612	Sept. 28	889	246	18	693
Gearing for changing the speed of rotating shafts .....	B. F. Shaw.	224,045	Feb. 3	81	25	17	217
Gearing. Oscillating .....	F. M. Waters and G. H. Earnest.	230,092	July 13	665	186	18	117
Gearing. Oscillating .....	F. M. Waters and G. H. Earnest.	234,354	Nov. 9	638	174	18	1101
Gearing to shafting. Key for attaching .....	T. G. Morse.	224,103	Feb. 3	154	44	17	229
Gelatine for vitrifiable prints. Preparation of .....	E. Salvy.	223,762	Jan. 20	665	.....	17	135
Gelatine. Manufacture and ornamentation of sheets of .....	W. V. Brigham.	233,973	Nov. 2	178	.....	18	1016
Gem-coating .....	F. E. Meyer.	223,237	Jan. 6	35	8	17	9
Gem-setting .....	A. Hessels.	233,678	Oct. 26	1106	308	18	946
Gem-setting .....	H. G. Mackinney.	233,158	Oct. 12	450	123	18	818
Generator:							
See Gas-generator. Steam-generator.							
Magneto - electric Vinegar-generator.							
generator.							
Generator and motor .....	J. E. Culver.	226,040	Mar. 30	1277	360	17	715
Gib .....	E. H. Marble.	232,047	Sept. 7	205	56	18	558
Gig-pad housing .....	E. C. Butler.	227,610	May 18	605	174	17	1099
Gilding iron and other metals. Bright .....	E. Dodé.	230,864	Aug. 10	322	.....	18	308
Gilding process .....	N. C. N. Laurence and E. G. Matzka.	229,427	June 29	1525	.....	17	1487
Gimlets. Die for forming double-twist .....	A. H. and J. S. Deuse.	224,156	Feb. 3	208	60	17	238
Girder. Arch .....	W. J. Fryer, Jr.	230,933	Aug. 10	396	114	18	319
Glass:							
See Graduated glass. Watch-glass.							
Glass and enamel to metal. Uniting .....	L. Morse.	226,770	Apr. 20	733	205	17	890
Glass and other fragile vessels. Casing for .....	J. Hughes.	232,502	Sept. 21	762	211	18	665
Glass and other furnaces .....	C. F. Schad.	230,577	July 27	1285	362	18	233
Glass and other molds. Manufacture of .....	I. M. O'Donel.	226,873	Apr. 27	873	243	17	923
Glass. Annealing .....	J. R. Denman.	229,976	July 13	540	{ 150 151 }	{ 18 18 }	{ 98 98 }
Glass annealing and tempering furnace .....	F. Siemens.	226,934	Apr. 27	945	262	17	935
Glass. Blow-pipe for blowing .....	E. Rosenzi.	233,530	Oct. 19	940	259	18	909
Glass. Brush-wheel for polishing .....	D. Forbes.	226,054	Mar. 30	1291	364	17	717
Glass button and mold for manufacturing the same .....	A. Hamann.	236,022	Dec. 28	1198	331	18	1503
Glass-cutter. Revolving .....	B. F. Adams.	229,228	June 29	1286	353	17	1455
Glass. Device for dividing .....	C. C. Dusenbury.	223,439	Jan. 13	287	76	17	65
Glass fish-globe. Double-walled .....	G. P. Ross and P. Vallejo.	233,435	Oct. 19	807	223	18	886
Glass-furnace .....	T. B. Atterbury.	225,296	June 1	164	46	17	1253
Glass-furnace .....	J. W. Vogel.	231,123	Aug. 10	605	171	18	352
Glass. Furnace for melting, refining, and working } out	C. W. and F. Siemens.	233,566	Oct. 19	957	{ 263 264 }	{ 18 18 }	{ 912 912 }
Glass-house furnace .....	J. J. Gill.	224,896	Feb. 24	1090	312	17	428
Glass-house furnace .....	J. J. Gill.	226,608	Apr. 20	557	155	17	861
Glass-house pot .....	G. Zimmerman.	233,904	Nov. 2	87	23	18	1001
Glass, &c. Machine for grinding .....	W. W. Lake and M. E. Weller.	225,619	Mar. 16	752	222	17	667
Glass-maker's crane .....	W. Hirt.	223,348	Jan. 6	163	42	17	29

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr's	Vol.	Page.
Glass-maker's crane.....	W. Hirt.....	234,777	Nov. 23	1193	392	18	1207
Glass-melting furnace.....	C. W. Siemens.....	229,846	July 13	403	111	18	76
Glass-melting furnace.....	C. W. Siemens.....	230,667	Aug. 3	88	24, 25	18	260
Glass-melting furnace.....	C. W. Siemens.....	230,668	Aug. 3	88	25, 26	18	261
Glass-mold.....	S. Hipkins, Jr.....	224,433	Feb. 10	530	153	17	310
Glass-mold.....	F. A. Weise.....	229,779	July 6	309	86	18	53
Glass on metallic thimbles. Molding.....	G. H. Lomax.....	230,709	Aug. 3	133	39	18	268
Glass or china ware utensils. Connecting parts of.....	J. Story.....	224,120	Feb. 3	174	49	17	232
Glass. Ornamenting.....	G. W. Martin.....	223,369	Jan. 6	182	.....	17	33
Glass pitcher.....	J. Grundy.....	227,426	May 11	395	115	17	1053
Glass pitchers, &c. Tool for making.....	W. Haley.....	233,672	Oct. 26	1101	306	18	945
Glass-plate cleaner.....	C. F. Linseott.....	229,430	June 29	1529	421	17	1487
Glass. Polishing.....	G. F. Lapham.....	230,137	July 20	743	.....	18	138
Glass, porcelain, &c. Joining pieces of.....	A. Man.....	227,370	May 11	333	98	17	1043
Glass-press.....	J. Haley.....	227,103	May 4	15	4	17	981
Glass-presses. Clamp for securing plungers in.....	J. R. Bridges.....	227,608	May 18	604	174	17	1099
Glass-scalloping machine.....	R. Voit.....	228,495	June 8	404	111	17	1300
Glass stones to metallic frames. Seening molded.....	J. Fischer.....	225,816	Mar. 23	997	226	17	657
Glass stopper.....	M. H. Hagerty.....	223,503	Jan. 13	364	97	17	77
Glass utensils. Attaching metal collars to.....	J. Story.....	229,063	June 22	1109	301	17	1421
Glass, wood, rubber, &c. Ornamenting smooth surfaces of.....	R. Cunningham.....	225,802	Mar. 23	983	.....	17	654
Glass-working. Machinery for handling blow-pipes in.....	R. Gray.....	223,726	Jan. 20	625	168	17	128
Glasses. Detachable cover for.....	W. Konrad.....	230,188	July 20	800	226	18	148
Glassware. Machine for finishing open-ended.....	J. J. Gill.....	230,543	July 27	1251	353	18	227
Glassware. Machine for grinding.....	A. M. Bacon.....	228,164	June 1	3	1, 2	17	1227
Glassware. Manufacture of.....	J. M. A. Deherrypon.....	223,637	Jan. 20	531	.....	17	114
Glassware. Manufacture of.....	T. C. Pears.....	224,555	Feb. 17	675	192	17	344
Glassware. Manufacture of handled.....	W. Fox.....	232,886	Oct. 5	111	30	18	756
Glassware. Manufacture of pressed.....	J. Denning.....	230,534	July 27	1240	349	18	225
Glassware. Method of and machinery for cutting, grinding, and polishing.....	P. Griessmayer.....	235,524	Dec. 14	577	164	18	1385
Glassware. Mold and process for the manufacture of.....	W. L. Libbey.....	234,300	Nov. 9	582	158	18	1092
Glassware. Mold for pressed.....	W. Haley.....	234,564	Nov. 16	913	245	18	1155
Glazed structure.....	W. E. Rendle.....	224,608	Feb. 17	743	210	17	356
Glazier's point.....	G. W. Hubbard.....	230,631	Aug. 3	42	12	18	254
Glaziers' points. Packing.....	G. W. Hubbard.....	230,632	Aug. 3	42	12	18	254
Glazier's tool.....	I. W. Heysinger.....	231,225	Aug. 17	743	208	18	380
Gleaner and binder.....	H. N. Johnston.....	235,775	Dec. 21	876	244	18	1442
Gleaner and binder.....	C. L. Travis.....	228,003	May 25	1086	309	17	1185
Gleaner and binder.....	W. N. Whiteley.....	231,248	Aug. 17	767	214	18	384
Gleaner and binder. Grain.....	M. A. Keller.....	231,914	Sept. 7	42	10	18	531
Globe.....	J. Arkell and A. G. Richmond.....	227,713	May 18	732	205	17	1118
Globe.....	G. Joslin.....	224,292	Feb. 10	371	106	17	284
Globe.....	R. D. Burr.....	234,528	Nov. 16	866	231	18	1147
Globe.....	F. H. Busby.....	235,125	Dec. 7	74	23	18	1294
Globe.....	J. M. Chanut.....	229,377	June 29	1471	405	17	1479
Globe.....	N. Parker.....	235,009	Nov. 30	1486	400	18	1263
Glove. Bathing.....	C. L. Mayne.....	235,268	Dec. 7	246	68	18	1322
Glove-fastener.....	R. R. Rae and J. Wilds.....	230,495	July 27	1201	338	18	218
Glove-fastener.....	M. M. Smith and J. Hassall.....	228,403	June 1	271	76	17	1270
Glove-fastener.....	W. H. Storey.....	228,484	June 8	390	108	17	1298
Glove-fastener.....	E. Wright.....	233,060	Oct. 5	316	87	18	790
Glove-fastening.....	H. W. Ducker.....	234,005	Nov. 2	229	61	18	1023
Glove-fastening.....	H. O. and F. B. Lothrop.....	230,793	Aug. 3	227	65, 66	18	223
Glove or garment fastener. Spring.....	A. G. Mead.....	227,440	May 11	410	119	17	1055
Gloves. Manufacture of.....	J. H. Granier and A. F. Fossemale.....	229,819	July 13	370	102	18	71
Glucose. Manufacturing.....	C. Furbish.....	226,398	Apr. 13	286	.....	17	808
Glucose. Manufacturing.....	J. E. Wolff.....	226,434	Apr. 13	333	.....	17	815
Glue, &c. Apparatus for drying.....	J. W. Hyatt.....	231,046	Aug. 10	521	146	18	338
Glue. Apparatus for evaporating liquors for the manufacture of.....	A. and E. Lister.....	228,542	June 8	458	124	17	1308
Glue-drying apparatus.....	A. and E. Lister.....	228,541	June 8	456	124	17	1308
Glutinous and starchy substances from Indian corn. Obtaining.....	L. J. Bennett.....	230,991	Aug. 10	463	.....	18	329
Gold and silver from ores. Extracting.....	J. V. Pomeroy.....	233,799	Oct. 26	1239	.....	18	969
Gold and silver. Machine for washing, sizing, and amalgamating.....	C. Duham.....	224,406	Feb. 10	499	143	17	305
Gold. Apparatus for dredging and separating.....	H. B. Meech.....	227,988	May 25	1066	303	17	1182
Gold, &c. Apparatus for dredging and separating.....	H. B. Meech.....	227,986	May 25	1062	302	17	1182
Gold. Apparatus for saving float.....	J. Wilkins.....	224,368	Feb. 10	459	131	17	298
Gold. Apparatus for saving float.....	J. Wilkins.....	231,205	Aug. 17	719	202	18	376
Gold from auriferous deposits. Machine for extracting.....	F. M. Mahan and S. R. Owen.....	233,632	Oct. 26	1054	294	18	937
Gold from its ores. Obtaining.....	A. C. Tichenor.....	228,140	May 25	1230	.....	17	1309
Gold from its solutions. Depositing.....	W. M. Davis.....	227,963	May 25	1036	.....	17	1177
Gold, &c., from ores. Extracting.....	J. F. Boynton.....	226,965	Apr. 27	980	272	17	940
Gold-saving apparatus.....	B. Tyson.....	229,650	July 6	157	44	18	32
Gold, silver, and copper from lead. Apparatus for and process of separating.....	A. H. Meyer.....	234,884	Nov. 30	1332	359	18	1237
Gong. Alarm.....	C. F. West.....	225,447	Mar. 9	544	156	17	560
Gong and alarm. Door.....	F. N. Cottle.....	231,152	Aug. 17	646	183	18	365
Goods exhibitor. Roll.....	S. T. Dickens.....	223,891	Jan. 27	840	224	17	174
Goods. Implement for handling shelf.....	A. F. Perry.....	227,444	May 11	415	120	17	1056
Governor.....	J. D. Churchill.....	231,274	Aug. 17	793	222	18	389
Governor.....	W. E. Crane.....	225,573	Mar. 16	700	206	17	598
Governor.....	D. F. Milne.....	232,836	Oct. 5	52	15	18	747
Governor.....	R. S. Werotte.....	226,257	Apr. 6	125	35	17	768
Governor and safety appliance to elevators.....	G. Dryden.....	233,841	Nov. 2	16	5	18	989
Governor. Dynamometrical engine.....	H. Knudson.....	229,713	July 6	233	64	18	42
Governor. Elevator.....	I. H. Small.....	228,284	June 1	153	42, 43	17	1251
Governor. Engine.....	B. Brazelle.....	229,948	July 13	512	141	18	93



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Governor. Engine.....	A. G. Waterhouse and B. B. Brewer.	233,175	Oct. 12	468	129	18	822
Governor for elevators, &c. Safety.....	A. A. Wilder.....	230,514	July 27	1217	343	18	221
Governor for marine engines.....	W. U. Fairbairn.....	228,252	June 1	109	32	17	1244
Governor for middlings-purifiers, &c. Feed.....	W. Donlon.....	228,180	June 1	22	7	17	1230
Governor for water-wheels, &c.....	H. D. Snow.....	228,566	June 8	491	131	17	1313
Governor. Steam.....	L. D'Auria.....	230,519	July 27	1223	344	18	222
Governor. Steam.....	W. R. Michener.....	228,772	June 15	764	210	17	1363
Governor. Steam.....	J. Sinnamon.....	231,940	Sept. 7	73	19	18	536
Governor. Steam-engine.....	W. H. Craig.....	226,160	Apr. 6	13	4	17	748
Governor. Steam-engine.....	W. E. Crane.....	233,734	Oct. 26	1168	325	18	956
Governor. Steam-engine.....	F. Heyer.....	236,029	Dec. 28	1204	333	18	1504
Governor. Water-elevator.....	J. C. Fulton.....	228,524	June 8	436	119	17	1305
Graduated glass or jar.....	T. A. Shinn.....	230,075	July 13	650	181	18	115
Grafting-tool.....	C. W. Hoyt.....	229,040	June 22	1084	296	17	1417
Grain and cockle separator.....	E. C. Gage.....	234,958	Nov. 30	1425	383	18	1252
Grain and seed separating screen.....	B. F. Pettit.....	229,632	July 6	138	39	18	29
Grain and seed separator.....	D. Geiser.....	225,696	Mar. 23	856	249	17	634
Grain and simultaneously purifying the products } thereof. Mode of and apparatus for reducing }	G. Milbank.....	229,445	June 29	1544	425		
					426	17	1490
					426		
Grain, &c. Apparatus for cleaning.....	J. Arbuckle.....	226,471	Apr. 13	376	107	17	821
Grain. Apparatus for degerminating and reducing.....	C. S. Rider.....	233,553	Oct. 19	944	260	18	909
Grain, &c. Apparatus for drying and renovating.....	J. McCoy.....	227,376	May 11	346	100	17	1045
Grain, &c. Apparatus for purifying.....	O. Oexle.....	225,859	Mar. 23	1036	298	17	663
Grain-bag nozzle and stopper.....	G. T. Hedrick.....	235,237	Dec. 7	213	58	18	1316
Grain-band cutter.....	M. G. Hubbard.....	231,424	Aug. 24	958	270	18	422
Grain-bin.....	W. Bailey.....	235,724	Dec. 21	821	230	18	1433
Grain-binder.....	J. Bingham.....	225,325	Mar. 9	418	121	17	539
Grain-binder.....	B. Chamberlain.....	226,035	Mar. 30	1268	357	17	713
Grain-binder.....	B. Chamberlain.....	234,172	Nov. 9	425	358		
					115	18	1065
					116		
Grain-binder.....	A. Goodyear.....	229,396	June 29	1491	411	17	1482
Grain-binder.....	J. F. Gordon.....	229,693	July 6	206	57		
Grain-binder.....	M. L. Gorham.....	233,089	Oct. 12	362	99	18	804
					100		
					101	18	1402
Grain-binder.....	W. Harrison.....	235,607	Dec. 14	677	192		
Grain-binder.....	J. H. Haughwout.....	233,852	Nov. 2	32	8	18	992
Grain-binder.....	P. F. Hodges.....	223,805	Jan. 27	731	197	17	157
Grain-binder.....	P. F. Hodges.....	233,151	Oct. 12	440	121		
Grain-binder.....	A. S. Hoyt.....	223,852	Jan. 27	788	210	17	165
Grain-binder.....	E. W. Jenkins.....	233,098	Oct. 12	379	211		
					104	18	806
					104		
Grain-binder.....	J. D. Jones.....	235,537	Dec. 14	593	169	18	1388
Grain-binder.....	M. A. Keller.....	230,705	Aug. 3	126	37, 38	18	267
Grain-binder.....	R. K. and J. Laraway.....	230,292	July 20	923	263	18	166
Grain-binder.....	C. W. Levalley.....	226,865	Apr. 27	856	238	17	922
					239		
					240	18	668
Grain-binder.....	C. W. Levalley.....	232,518	Sept. 21	779	216		
Grain-binder.....	S. D. Locke.....	235,443	Dec. 14	475	134	18	1368
Grain-binder.....	J. C. McFall.....	235,270	Dec. 7	247	135		
					69, 70	18	1322
					327		
Grain-binder.....	M. T. Neale.....	225,944	Mar. 30	1155	328	17	696
Grain-binder.....	F. Ogden and H. M. Weaver.....	232,201	Sept. 14	385	329		
					107	18	595
					108		
Grain-binder.....	W. H. Payne.....	234,372	Nov. 9	657	179	18	1104
Grain-binder.....	W. M. Platt.....	223,754	Nov. 20	654	176	17	133
Grain-binder.....	H. E. Pridmore.....	226,785	Apr. 20	746	209	17	892
Grain-binder.....	H. E. Pridmore.....	234,806	Nov. 23	1234	332	18	1213
Grain-binder.....	O. O. Storie.....	223,614	Jan. 13	494	133	17	98
Grain-binder.....	D. Strunk.....	223,407	Jan. 6	223	59	17	41
Grain-binder.....	D. Strunk.....	223,773	Jan. 20	678	182	17	137
Grain-binder.....	C. L. Travis.....	224,744	Feb. 17	885	183		
					253	17	380
					241		
Grain-binder.....	C. B. Withington.....	225,195	Mar. 2	241	67, 68	17	498
Grain-binder.....	C. B. Withington.....	230,382	July 20	1025	290	18	183
Grain-binder.....	C. B. Withington.....	230,383	July 20	1027	291	18	183
Grain-binder.....	C. B. Withington.....	234,638	Nov. 16	1016	271	18	1172
					272		
					272	18	427
Grain-binder knot-tyer.....	F. W. Randall.....	231,448	Aug. 24	984	277		
Grain by steam. Apparatus for cooking and drying.....	H. C. Howard.....	226,172	Apr. 6	29	8	17	751
Grain-cargoes. Device for preventing the shifting of.....	W. E. Ferguson.....	225,581	Mar. 16	708	208	17	600
Grain-cleaner. Brush.....	L. Gathmaun.....	227,890	May 25	947	271	17	1164
Grain cleaning and dampening apparatus.....	D. Miller.....	229,901	July 13	457	126	18	85
Grain-cleaning machine.....	J. Russell.....	232,303	Sept. 14	509	142	18	617
Grain-conveyer. Pneumatic.....	F. A. Luckenbach.....	228,206	June 1	49	16	17	1235
Grain-crushing roll.....	J. Stevens.....	225,770	Mar. 23	942	272	17	648
Grain-cutting machine.....	W. Heston and C. Purdy.....	227,626	May 18	623	179	17	1102
Grain decorticating and cleaning apparatus.....	U. Boucher.....	225,329	Mar. 9	422	122	17	540
Grain-distributing machine.....	H. Fischer.....	228,048	May 25	1126	320	17	1191
Grain-drier.....	W. Eberhard.....	231,481	Aug. 24	1017	286	18	433
Grain-drier.....	B. L. Harris.....	229,124	June 22	1175	322	17	1430
Grain-drier.....	J. L. Norton.....	224,217	Feb. 3	280	81	17	250
Grain-drier.....	C. Spofford.....	231,861	Aug. 31	1474	413	18	510
Grain, &c. Drier and cooler for.....	F. H. C. Mey and M. J. Stark.....	226,669	Apr. 20	628	175	17	872
Grain-drier floor.....	W. and F. Töcper.....	233,301	Oct. 12	623	172	18	849

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Grain-drill .....	D. E. Asher .....	231,749	Aug. 31	1337	{ 376 377 }	18	489
Grain-drill .....	J. S. Bogle .....	223,470	Jan. 13	324	86, 87	17	70
Grain-drill .....	W. H. Nauman .....	233,109	Oct. 12	390	107	18	809
Grain-drill .....	H. Santrock .....	233,439	Oct. 19	811	224	18	887
Grain-drill .....	J. C. Sebring .....	229,919	July 13	476	132	18	88
Grain-drill .....	J. H. Shreiner .....	234,730	Nov. 23	1136	306	18	1198
Grain-drill and cultivator. Combined .....	J. C. Baker .....	234,845	Nov. 30	1288	346	18	1229
Grain-drill attachment .....	W. D. Green .....	233,501	Jan. 13	362	96	17	77
Grain-drill attachment .....	S. F. Nosker .....	227,047	Apr. 27	1083	299	17	957
Grain-drill attachment .....	W. W. Winegar .....	235,838	Dec. 21	954	266	18	1456
Grain-drill feed-cnp .....	D. Berlew .....	226,963	Apr. 27	977	272	17	940
Grain-drill feed-regulator .....	J. P. Outcalt and L. Kissner .....	233,009	Oct. 5	253	70	18	780
Grain-drill fertilizing attachment .....	W. H. Young .....	226,469	Apr. 13	373	106	17	821
Grain-drill hoe cleaner .....	J. Saurer .....	230,068	July 13	643	179	18	114
Grain-drill teeth. Detachable point and fastening for .....	W. H. Wilson .....	225,674	Mar. 16	813	238	17	617
Grain-drill teeth. Mechanism for adjusting .....	W. Q. Prewitt .....	225,640	Mar. 16	776	227	17	611
Grain-drill tooth .....	A. and A. Franklin .....	230,184	July 20	794	224	18	147
Grain-drill tooth .....	J. H. McPherson .....	232,199	Sept. 14	383	106	18	595
Grain-drills. Drag plow or shoe for .....	J. Caldwell .....	230,235	July 20	851	241	18	155
Grain-drills. Force-feed device for .....	J. C. Slaughter .....	232,373	Sept. 21	608	167	18	639
Grain-drills. Hoe and shovel for .....	D. E. McSherry .....	232,290	Sept. 14	496	138	18	615
Grain-elevator .....	S. W. Neall .....	227,520	May 18	842	238	17	1136
Grain-elevator .....	W. W. Stoll .....	227,317	May 4	258	75	17	1020
Grain, &c., for grinding. Preparing .....	L. S. Chichester .....	229,603	July 13	349	.....	18	68
Grain grading and scouring apparatus .....	L. O. Stevens .....	233,297	Oct. 12	617	170	18	848
Grain-heater .....	W. N. Durant .....	231,157	Aug. 17	651	184	18	366
Grain-hulling machine .....	J. St. John .....	233,381	Oct. 19	742	203	18	876
Grain-loading scoop and elevator .....	W. S. Morden .....	229,737	July 6	261	73	18	47
Grain, &c. Machine for separating foreign matter from .....	F. Prinz .....	234,724	Nov. 23	1129	304	18	1197
Grain-meter .....	W. H. Allen .....	223,692	Jan. 20	593	159	17	123
Grain-meter .....	J. C. Brooks .....	234,951	Nov. 30	1416	381	18	1250
Grain-meter .....	D. Collins .....	227,217	May 4	154	45	17	1003
Grain-meter .....	G. A. Fry .....	226,511	Apr. 13	432	121	17	830
Grain-meter .....	J. W. Hill .....	227,689	May 18	699	198	17	1113
Grain-meter .....	C. H. Horton .....	225,834	Mar. 23	1013	291	17	659
Grain-meter .....	B. C. Meyer .....	228,095	May 25	1183	336	17	1201
Grain-meter .....	J. B. Stoner .....	228,229	June 1	80	24, 25	17	1240
Grain, middlings, &c. Roll for reducing .....	W. D. Gray .....	228,525	June 8	437	119	17	1305
Grain-mill .....	J. B. Carlin .....	232,239	Sept. 14	437	120	18	604
Grain. Reducing .....	J. Mills .....	233,536	Oct. 19	921	.....	18	906
Grain-register .....	O. J. Dimmick .....	233,216	Oct. 12	515	143	18	830
Grain-register .....	W. B. Richardson .....	232,759	Sept. 28	1058	289	18	722
Grain-rick frame .....	C. Geiger .....	225,589	Mar. 16	718	211	17	601
Grain-sampler .....	J. B. Frost .....	230,121	July 20	721	202	18	136
Grain scouring and cleaning apparatus .....	L. Gathmann .....	227,891	May 25	949	{ 271 272 }	17	1164
Grain-scouring apparatus .....	J. N. Knox .....	232,979	Oct. 5	221	60	18	774
Grain-scouring apparatus .....	J. S. Leas and S. Hanson .....	232,986	Oct. 5	228	62	18	776
Grain-scouring device .....	D. M. Richardson .....	233,021	Oct. 5	268	73	18	782
Grain-separator .....	W. S. Bright and S. Thomas .....	231,992	Sept. 7	145	38	18	547
Grain-separator .....	R. Z. Bushaw .....	235,739	Dec. 21	836	234	18	1435
Grain-separator .....	J. Grube .....	225,367	Mar. 9	461	134	17	546
Grain-separator .....	J. Grube .....	235,229	Dec. 7	205	56	18	1315
Grain-separator .....	J. F. Hatfield .....	234,034	Nov. 2	259	70, 71	18	1029
Grain-separator .....	J. A. Krake .....	223,233	Jan. 6	30	7	17	8
Grain-separator .....	J. A. Olson .....	224,220	Feb. 3	283	82	17	250
Grain-separator .....	W. H. Parrish .....	224,470	Feb. 10	571	164	17	317
Grain-separator .....	A. A. Russell .....	235,965	Dec. 28	1134	{ 313 314 }	18	1493
Grain-separator .....	J. B. Snitt .....	224,801	Feb. 24	989	280	17	411
Grain-separator .....	H. E. Wright, R. Clubb, H. D. Nash, and J. Klees .....	225,263	Mar. 9	326	95	17	526
Grain separator and thrasher .....	E. Huber and F. Strobel .....	231,803	Aug. 31	1404	{ 396 397 }	18	500
Grain-separator Magnetic .....	H. E. Cook and J. B. Thayer .....	233,920	Nov. 2	105	28	18	1004
Grain-separator. Magnetic .....	C. E. Fritz .....	223,901	Jan. 27	845	226	17	174
Grain-separator. Magnetic .....	J. B. Thayer and H. E. Cook .....	225,029	Mar. 2	58	16	17	466
Grain-separators. Sieve for .....	J. A. Olson .....	232,751	Sept. 28	1047	287	18	720
Grain-shoveler .....	S. R. Kirby .....	228,081	May 25	1167	332	17	1193
Grain-toller .....	W. J. Wilson .....	230,378	July 20	1021	289	18	182
Graining-machine .....	R. A. Adams .....	233,179	Oct. 12	475	130	18	823
Grape-picker .....	T. C. White .....	224,975	Feb. 24	1170	335	17	441
Grapes, &c. Machine for expressing the juice from .....	P. M. J. Chavanette .....	224,648	Feb. 17	786	{ 222 223 }	17	363
Graphite from foreign substances. Separating .....	H. Burgess .....	229,669	July 6	180	50	18	35
Grate .....	J. Collins .....	223,634	Jan. 20	529	142	17	113
Grate .....	J. B. Faris .....	231,296	Aug. 17	816	{ 228 229 }	18	392
Grate .....	A. L. Goodenow and W. J. Owens .....	231,710	Aug. 31	1228	362	18	421
Grate .....	H. Mather .....	233,783	Oct. 26	1219	339	18	966
Grate .....	R. Newton .....	233,003	Oct. 5	245	68	18	779
Grate .....	E. A. Wood .....	233,652	Oct. 26	1079	300	18	941
Grate and fender for fire-places .....	J. N. Harris .....	228,994	June 22	1040	283	17	1410
Grate-bar .....	E. Haycox .....	225,521	Mar. 16	643	187	17	587
Grate-bar .....	T. Maitland .....	234,047	Nov. 2	273	75	18	1031
Grate-bar .....	O. Reilly .....	225,419	Mar. 9	517	149	17	555
Grate-bar .....	C. K. Rogers and W. S. McIntire .....	227,180	May 4	105	31	17	995
Grate. Fire .....	J. Connor and O. A. Wadsworth .....	234,907	Nov. 30	1363	366	18	1241
Grate. Fire .....	E. Monense .....	228,376	June 1	246	70	17	1266
Grate. Fire .....	P. Sweeney .....	230,906	Aug. 10	371	107	18	315
Grate. Fire-place .....	J. Brown and P. Miller .....	231,206	Aug. 17	720	202	18	377
Grato. Fire-place .....	J. B. Samuel .....	226,356	Apr. 6	223	68	17	788

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Grate. Fire-place	E. Scanlan	233,556	Oct. 19	948	261	18	910
Grate-frame	J. Walsh	226,640	Apr. 20	600	167	17	868
Grate-front	H. D. Pursell	225,074	Mar. 2	117	33	17	476
Grater	J. Chaumont	226,278	Apr. 6	146	42	17	772
Grater	S. Toffer	230,679	Aug. 3	100	29	18	262
Grater and slicer. Vegetable	J. F. Weitzel	228,147	May 25	1236	351	17	1210
Grater. Vegetable	S. Fine and M. F. Locke	231,416	Aug. 24	949	267	18	421
Grater. Vegetable	F. Wittenmeier	225,313	Mar. 9	401	117	17	536
Grave-cover	J. R. Thomas	232,570	Sept. 21	829	230	18	676
Grave-protector	M. Irion	227,257	May 4	198	58	17	1010
Graves. Device for filling	J. Holmes	226,856	Apr. 27	849	235	17	920
Grazing-post	T. B. Ashford	223,872	Jan. 27	820	219	17	170
Griddle	C. F. Green	225,927	Mar. 30	1132	322	17	692
Griddle. Cake	I. W. Snyder	225,656	Mar. 16	790	232	17	614
Grinder. Grain	J. and R. Bean	233,192	Oct. 12	488	134	18	826
Grinders. Hopper for feed	G. Metcalf	226,337	Apr. 6	215	62	17	785
Grinding and polishing implement	T. B. Stone	223,771	Jan. 20	676	182	17	137
Grinding and polishing wheel	J. W. Cole	226,978	Apr. 27	997	277	17	943
Grinding and polishing wheel	G. Hart	228,257	June 1	117	34	17	1245
Grinding and pulverizing apparatus	J. Rutherford	224,357	Feb. 10	445	128	17	296
Grinding and reducing mill	B. F. Crabbs	229,589	July 6	96	26	18	23
Grinding and triturating apparatus	T. T. Morrell	234,052	Nov. 2	278	76	18	1032
Grinding grain. Feed device for roller-mills for	W. D. Gray	225,761	Dec. 21	861	240	18	1439
Grinding grain. Roller-mill for	G. Daverio	235,517	Dec. 14	567	162	18	1384
Grinding-machine	H. Hammond	229,250	June 29	1311	361	17	1458
Grinding-mill	W. A. Branch and E. Golucke	227,212	May 4	148	43	17	1002
Grinding-mill	J. T. Case	232,595	Sept. 28	869	240	18	690
Grinding-mill	L. Durand	224,664	Feb. 17	804	228		
Grinding-mill	J. J. Faulkner	225,118	Mar. 2	163	46	17	484
Grinding-mill	J. Fitzgerald	235,422	Dec. 14	446	126	18	1364
Grinding-mill	E. G. Good	231,222	Aug. 17	740	127		
Grinding-mill	P. Hobler and E. G. Good	226,315	Apr. 6	191	56	17	781
Grinding-mill	T. J. Obenchain	234,199	Nov. 9	461	125	18	1071
Grinding-mill	W. B. Pardee	226,777	Apr. 20	740	206	17	891
Grinding-mill	N. A. Patterson and W. C. Hale	231,354	Aug. 17	875	207		
Grinding-mill	J. Rae	233,278	Oct. 12	588	246	18	402
Grinding-mill	G. and A. Raymond	226,196	Apr. 6	58	162	18	843
Grinding-mill	J. Stevens	230,834	Aug. 3	277	14, 15	17	756
Grinding-mill	J. Stevens	236,104	Dec. 28	1295	79	18	292
Grinding-mill	J. B. Swisher and J. R. Mershon	232,779	Sept. 28	1086	356	18	1519
Grinding-mill	A. Voelk	231,512	Aug. 24	1053	297	18	726
Grinding-mill	O. E. Winger	227,465	May 11	441	295	18	438
Grinding-mill balancing device	H. Smith	224,236	Feb. 3	297	126	17	1061
Grinding-mill. Corn	M. Möller	232,536	Sept. 21	799	127		
Grinding-mill. Domestic	D. W. Parker and F. H. Chapman	233,010	Oct. 5	254	86	17	253
Grinding-mill. Feed	D. J. and E. J. Ames	226,152	Apr. 6	5	221	18	671
Grinding-mill for grain, middlings, &c	J. Higginbottom and E. Hutchinson	225,374	Mar. 9	467	70	18	780
Grinding mill. Middlings	J. Mills	223,856	Jan. 27	796	2	17	747
Grinding-mill mixing and feeding apparatus	J. P. Lowell	229,722	July 6	243	136	17	547
Grinding-mill. Roller	J. Stevens	228,001	May 25	1084	213		
Grinding, polishing, and buffing wheel	T. Gingras	230,768	Aug. 3	195	214	17	167
Grinding-wheels. Composition for	C. E. Stevens	225,658	Mar. 16	793	67	18	44
Grindstone tool-holder	L. Young	228,849	June 15	861	309	17	1185
Grist-mill alarm attachment	W. H. Hottel	225,136	Mar. 2	180	57	18	278
Grits, &c. Apparatus for separating and cleaning	T. Bühlmann	231,395	Aug. 24	927	17	614	
Grocer's fork	A. J. Daniels	234,855	Nov. 30	1298	235	18	1231
Grub and stump puller	J. J. Marshall	229,437	June 29	1536	423	17	1488
Grubber	W. R. Downing	227,620	May 18	617	177	17	1101
Guano-distributor	D. A. Saggus	230,967	Aug. 10	432	124	18	324
Guard:							
See Berth-guard.	Fork-guard.						
Bridge-guard.	Hatchway-guard.						
Car dust-guard.	Insect-guard.						
Car-wheel guard.	Key-hole guard.						
Carriage-wheel guard.	Lightning-guard.						
Child's chair and carriage guard.	Nose-guard.						
Cinder-guard.	Tapping-guard.						
Cultivator-guard.	Vehicle-wheel sand-guard.						
Dress-guard.	Wheel-guard.						
Whiffletree-guard.							
Guard-finger	M. Howard	223,807	Jan. 27	736	198	17	157
Guard-finger and sickle-bar	P. Deevy	235,855	Dec. 28	996	276	18	1471
Gun. Air	W. T. Chamberlain	229,868	July 13	425	117	18	80
Gun. Air	A. G. Hyde	227,789	May 18	815	230	17	1131
Gun. Line-throwing	L. W. Spencer	229,058	June 22	1102	300	17	1420
Gun-lock	W. N. Crabtree	229,383	June 29	1479	407	17	1480
Gun. Machine	M. Coloney	225,462	Mar. 16	576	167	17	576
Gun. Machine	M. Coloney	225,466	Mar. 16	580	168	17	576
Gun. Machine	M. Coloney	231,653	Aug. 31	1225	344	18	472
Gun. Machine	E. G. Parkhurst	228,777	June 15	770	345		
Gun. Machine	E. G. Parkhurst	231,607	Aug. 24	1162	211	17	1364
Gun. Magazine	A. Burgess	224,994	Mar. 2	13	325	18	455
Gun. Magazine	M. Coloney	231,652	Aug. 31	1223	4	17	458
Gun-wad	J. Neimeyer	225,412	Mar. 9	511	147	17	554
Guns. Cartridge-feed case for machine	E. G. Parkhurst	229,007	June 22	1055	287	17	1413

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr't	Vol.	Page.
Guns. Cartridge-feeder for machine.....	W. Gardner and E. G. Parkhurst...	235,627	Dec. 21	708	{ 200 201 }	18	1414
Guns. Rifle-barrel for shot.....	C. R. Shelton.....	230,442	July 27	1142	321	18	208
Guns. Safety attachment for breech-loading.....	R. P. Daggett.....	230,693	Aug. 3	112	32, 33	18	264
Guns. Tripod-support for machine.....	E. G. Parkhurst.....	227,648	May 18	649	{ 184 185 }	17	1106
Gymnastic and other performances. Apparatus for use in.....	G. Oliver.....	233,541	Oct. 19	926	255	18	906
Hair-crimper.....	H. A. Gray, Jr.....	235,680	Dec. 21	762	217	18	1423
Hair-pin.....	C. Inskeep.....	231,049	Aug. 10	525	147	18	339
Hair-pin.....	A. J. Shipley.....	225,428	Mar. 9	527	151	17	557
Hair-pin.....	J. R. Smith.....	225,430	Mar. 9	528	152	17	557
Hair-springs to balance-staffs. Attachment of.....	J. M. Heard.....	228,995	June 22	1041	283	17	1410
Hair-wash.....	M. Goldman.....	225,979	Mar. 30	1203		17	703
Halter to prevent horses from cribbing.....	A. Madden.....	227,026	Apr. 27	1055	293	17	953
Halter-trimming.....	E. G. Latta.....	229,717	July 6	237	65	18	43
Ham. Machine for packing boned.....	W. Hoefjen.....	234,983	Nov. 30	1455	391	18	1257
Hams and shoulders. Preparation of boned.....	C. Maisel and L. M. Fisher.....	234,308	Nov. 9	590	161	18	1093
Hams. Apparatus for pickling.....	W. H. Scudder.....	224,848	Feb. 24	1038	296	17	419
Hame.....	J. M. Davis.....	223,489	Jan. 13	349	93	17	74
Hame.....	J. P. Hisley.....	230,939	Aug. 10	403	117	18	320
Hame.....	J. B. Place.....	224,474	Feb. 10	575	166	17	317
Hame and pad therefor. Horse.....	W. B. Guernsey.....	231,664	Aug. 31	1236	{ 347 348 }	18	473
Hame-clasp.....	C. G. Calo.....	230,234	July 20	851	241	18	155
Hame-fastener.....	A. Bauder.....	228,022	May 25	1102	314	17	1187
Hame-fastener.....	A. C. Richardson.....	227,384	May 11	353	103	17	1046
Hame-fastener.....	T. L. Wiswell.....	233,312	Oct. 12	634	175	18	851
Hame-hasp.....	J. L. Poinsett.....	235,568	Dec. 14	631	180	18	1395
Hame-hook.....	M. C. Hargrave.....	232,960	Oct. 5	198	52	18	770
Hame-ring.....	A. J. Larson.....	227,982	May 25	1058	301	17	1181
Hame-strap attachment.....	W. B. Hayden.....	233,675	Oct. 26	1104	307	18	946
Hammer. Drop.....	M. Hassé.....	228,067	May 25	1152	328	17	1196
Hammer. Horseshoe.....	H. N. Mallory.....	224,023	Feb. 3	59	18	17	213
Hammer lifter. Drop.....	C. G. Cross.....	228,324	June 1	191	54	17	1258
Hammer. Power.....	C. M. Brown.....	230,612	Aug. 3	16	5	18	249
Hammer. Steam.....	T. R. Morgan.....	231,185	Aug. 17	692	{ 194 195 }	18	373
Hammer. Steam.....	J. Watt.....	227,460	May 11	433	125	17	1059
Hammers and hatchets. Manufacture of.....	J. Yerkes.....	235,326	Dec. 7	309	87	18	1332
Hammering draw-plates. Machine for.....	C. D. Rogers.....	225,238	Mar. 9	304	87	17	521
Hammock and supporting-frame. Combined.....	A. V. S. Hicks.....	223,588	Jan. 13	464	126	17	93
Hammock-support.....	J. Edson.....	224,178	Feb. 3	235	69	17	242
Hammock-support and tent-frame.....	E. C. Price.....	235,809	Dec. 21	916	255	18	1450
Hand and foot motor.....	D. W. Mott.....	229,739	July 6	262	74	18	47
Hand-brace for use in writing. Adjustable.....	T. P. Forsyth.....	235,520	Dec. 14	572	163	18	1385
Hand-drill.....	J. W. Burkholder.....	234,109	Nov. 2	338	93	18	1043
Hand-drill.....	G. B. Clark.....	230,746	Aug. 3	172	51	18	274
Hand-power.....	R. P. Dake.....	232,244	Sept. 14	444	122	18	605
Hand-rakes. Manufacture of.....	J. W. Ellis.....	226,051	Mar. 30	1286	{ 362 363 }	17	717
Hand-rest.....	E. J. Smith.....	235,581	Dec. 14	647	183	18	1397
Handcuff.....	H. Ahrend.....	226,949	Apr. 27	961	267	17	937
Handcuff.....	D. Altman.....	226,950	Apr. 27	962	267	17	938
Handle:							
<i>See</i> Cane-handle. File-handle.							
Cane and umbrella handle. Kettle-handle.							
Casket or coffin handle. Milk-can handle.							
Coffin-handle. Plo and cultivator handle.							
Comb-handle. Pocket-book and satchel handle.							
Cutlery-handle. Saw-handle.							
Cutting-blade handle. Shawl-strap handle.							
Dish-handle. Shovel-handle.							
Door-lock handle. Tool-handle.							
Drop-handle. Tool-socket handle.							
Drop-handle. Whip-handle.							
Handle attachment for agricultural and like implements.	A. Berghaus.....	235,408	Dec. 14	430	121	18	1361
Handle, bail, and strap-holder for cans, &c. Combined.	W. Wilson, Jr.....	234,364	Nov. 9	650	176	18	1103
Handle for satchels, bags, &c.....	E. Simon.....	229,481	June 29	1597	440	17	1497
Handle for trunks, bags, &c.....	M. Schwerin.....	226,794	Apr. 20	757	211	17	894
Hanger:							
<i>See</i> Bell-hanger. Pantaloen-hanger.							
Car-door hanger. Paper-hanger.							
Door-hanger. Picture-hanger.							
Eaves-trough hanger. Shaft-hanger.							
Gate-hanger. Shafting-hanger.							
Lantern-hanger. Sign-hanger.							
Mirror-hanger. Sliding or swinging gate hanger.							
Harmonica.....	M. Oefinger.....	235,281	Dec. 7	262	73	18	1324
Harness.....	C. E. Berry.....	234,519	Nov. 16	855	228	18	1145
Harness.....	T. Boardman.....	225,328	Mar. 9	421	122	17	540
Harness.....	T. C. Churchman.....	234,701	Nov. 23	1104	297	18	1193
Harness.....	G. C. Hale.....	229,120	June 22	1171	321	17	1430
Harness.....	J. Hebel.....	225,826	Mar. 23	1007	289	17	658
Harness.....	O. E. Hollister.....	235,874	Dec. 28	1016	281	18	1474
Harness.....	P. S. Miller.....	226,241	Apr. 6	109	30	17	765
Harness.....	D. F. Packer.....	229,176	June 22	1227	337	17	1438
Harness air-pad.....	H. C. Marsh.....	226,239	Apr. 6	107	29	17	765

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Harness attachment.....	C. H. and C. H. Easte, Jr.....	229,594	July 6	102	27	18	24
Harness attachment.....	F. P. Fowler.....	229,111	June 22	1162	318	17	1428
Harness back-band loop.....	R. M. Selleck.....	226,631	Apr. 20	589	165	17	866
Harness box-loop.....	J. C. Brightman.....	231,393	Aug. 24	925	261	18	417
Harness. Breast.....	J. W. Cooper.....	223,175	June 1	17	6	17	1229
Harness. Breast.....	C. M. Foulke.....	226,510	Apr. 13	431	120	17	829
Harness breeching-stay.....	M. M. Sulgrove.....	223,774	Jan. 20	680	183	17	138
Harness check-hook.....	G. W. Hinkle.....	227,435	May 11	405	118	17	1054
Harness-clamp.....	E. Peters.....	226,782	Apr. 20	744	208	17	892
Harness-clasp.....	G. D. Smith.....	227,929	May 25	989	283	17	1170
Harness-crupper.....	C. Tobias.....	233,715	Oct. 26	1150	320	18	953
Harness gag-runner.....	W. H. Chapman.....	234,246	Nov. 9	515	142	18	1081
Harness gag-runner.....	M. R. Dowlin.....	223,896	Jan. 27	841	225	17	174
Harness-hook.....	J. B. and M. J. Witter.....	229,348	June 29	1442	397	17	1475
Harness-loop.....	F. B. Barkley.....	232,167	Sept. 14	347	97	18	589
Harness-loop fastening.....	J. Shaffer.....	226,003	Mar. 30	1232	348	17	708
Harness-loop press.....	J. L. Barkley.....	224,983	Mar. 2	3	1	17	457
Harness-loops. Machine for forming.....	R. W. Perkins and F. H. Allen.....	236,078	Dec. 28	1260	348	18	1514
Harness-loops. Machine for pressing and ornamenting.....	W. T. Lane and J. P. Avery.....	226,761	Apr. 20	725	202	17	888
Harness-loops. Manufacture of.....	J. Shaffer.....	226,004	Mar. 30	1233	348	17	708
Harness-maker's stitching-horse.....	J. B. Underwood.....	229,210	June 22	1263	347	17	1443
Harness-maker's stitching-horse.....	C. A. Holland.....	225,604	Mar. 16	734	217	17	604
Harness-maker's stitching-horse.....	C. A. Holland.....	222,351	Sept. 21	580	159	18	635
Harness. Neck-yoke adjuster for.....	J. A. Barnes.....	223,575	Jan. 13	452	122	17	91
Harness-pad.....	C. Grunder and J. H. Moyer.....	234,125	Nov. 9	371	102	18	1055
Harness-pad.....	R. G. Leighton.....	231,594	Aug. 24	1149	321	18	452
Harness-pad machine.....	P. A. Smith.....	229,017	June 22	1062	289	17	1414
Harness-pads. Machine for forming.....	W. R. Ferguson.....	227,748	May 18	771	217	17	1124
Harness-rosette.....	C. F. Waldron.....	233,583	Oct. 19	976	270	18	915
Harness. Suspending swinging.....	C. E. Berry.....	234,520	Nov. 16	856	229	18	1146
Harness-tree.....	T. Miller.....	231,835	Aug. 31	1439	405	18	505
Harp.....	C. E. Holtz.....	224,536	Feb. 17	651	187	17	341
Harrow.....	G. W. Altaffer.....	235,484	Dec. 14	529	152	18	1378
Harrow.....	J. H. Barley.....	225,042	Mar. 2	76	21	17	469
Harrow.....	J. H. Barley.....	231,257	Aug. 17	777	217	18	386
Harrow.....	M. S. Blair.....	224,813	Feb. 24	1000	283	17	413
Harrow.....	S. A. Bollinger.....	228,303	June 1	172	48	17	1254
Harrow.....	S. C. Cobb.....	224,273	Feb. 10	348	100	17	281
Harrow.....	D. B. Eberly.....	227,506	May 11	483	139	17	1068
Harrow.....	A. C. Evans.....	225,694	Mar. 23	853	248	17	634
Harrow.....	A. C., J. M., and L. C. Evans.....	223,492	Jan. 13	353	94	17	75
Harrow.....	F. P. Fuller.....	226,448	Apr. 13	350	100	17	817
Harrow.....	J. P. Gage.....	223,334	Jan. 6	150	38	17	27
Harrow.....	S. D. Gibson.....	223,336	Jan. 6	152	39	17	27
Harrow.....	S. Harris.....	232,641	Sept. 28	922	253	18	699
Harrow.....	W. H. Hulings.....	234,576	Nov. 16	931	250	18	1158
Harrow.....	C. La Dew.....	233,777	Oct. 26	1213	337	18	965
Harrow.....	W. S. Lawrence.....	232,192	Sept. 14	377	105	18	594
Harrow.....	A. Low.....	227,551	May 11	530	154	17	1076
Harrow.....	M. M. McDirmit.....	229,265	June 29	1327	365	17	1460
Harrow.....	J. F. Munz.....	224,601	Feb. 17	736	209	17	355
Harrow.....	G. Newton.....	226,414	Apr. 13	305	88	17	811
Harrow.....	C. W. Page.....	228,382	June 1	252	71	17	1267
Harrow.....	W. Pendley and A. Moss.....	226,675	Apr. 20	635	177	17	873
Harrow.....	J. A. Prindle.....	227,445	May 11	415	120	17	1056
Harrow.....	I. H. Reiner.....	227,836	May 18	861	245	17	1138
Harrow.....	W. Rucker, Sr.....	232,764	Sept. 28	1062	291	18	722
Harrow.....	L. T. and C. H. Smith.....	234,928	Nov. 30	1384	372	18	1245
Harrow.....	W. L. Waddy.....	227,862	May 18	891	253	17	1143
Harrow.....	J. and G. E. Waggoner.....	225,444	Mar. 9	542	156	17	560
Harrow.....	C. E. Wymau.....	231,386	Aug. 17	909	256	18	408
Harrow and clod-crusher.....	F. Nishwitz.....	225,634	Mar. 16	769	226	17	610
Harrow and cultivator.....	S. L. Coggin.....	233,730	Oct. 26	1164	323	18	955
Harrow and cultivator.....	G. E. Dunbar.....	233,663	Oct. 26	1093	304	18	944
Harrow and cultivator teeth. Gripe for spring.....	J. P. Warner.....	233,718	Oct. 26	1152	321	18	953
Harrow and cultivator tooth.....	G. C. Winslow.....	234,639	Nov. 16	1018	272	18	1173
Harrow and cultivator tooth. Combined.....	I. H. and S. Reiner.....	235,651	Dec. 21	733	208	18	1418
Harrow and leveler. Combined.....	G. W. Barrier.....	231,650	Aug. 31	1222	343	18	471
Harrow and roller. Combined.....	J. P. Ring and E. L. Mooney.....	225,024	Mar. 2	48	14	17	464
Harrow and seed-sower.....	R. Hamilton.....	230,271	July 20	902	257	18	163
Harrow, cultivator, and seeding-machine. Wheel.....	F. Batchelor.....	228,021	May 25	1102	314	17	1187
Harrow. Farm.....	A. O. Stiveson.....	226,563	Apr. 13	486	136	17	838
Harrow-frame clamp.....	A. Wilcox.....	231,637	Aug. 24	1192	333	18	459
Harrow, marker, and cultivator. Combined.....	E. Dark, D. Collins, and G. W. Nelson.....	228,612	June 8	546	146	17	1321
Harrow or cultivator.....	F. Bramier and G. G. Crowley.....	227,724	May 18	744	209	17	1120
Harrow. Platform.....	C. Morris and M. S. Heacock.....	231,080	Aug. 10	557	157	18	344
Harrow. Rotary.....	F. J. Lampton.....	232,355	Sept. 21	585	161	18	636
Harrow. Rotary.....	H. H. Monroe.....	229,267	June 29	1329	366	17	1461
Harrow. Rotary.....	W. W. Vanhorn.....	223,965	Jan. 27	923	248	17	187
Harrow. Rotary and drag.....	P. R. Weatherford.....	229,505	June 29	1020	446	17	1500
Harrow. Spring-tooth.....	S. C. Cobb.....	235,071	Dec. 7	12	3	18	1283
Harrow. Spring-tooth.....	H. Gale.....	228,054	May 25	1134	323	17	1193
Harrow. Spring-tooth.....	H. A. Kiltz.....	231,175	Aug. 17	679	191	18	371
Harrow. Sully.....	N. L. Brass.....	223,471	Jan. 13	327	88	17	71
Harrow. Sully.....	W. W. Cook.....	224,650	Feb. 17	788	223	17	363
Harrow-teeth. Machine for making.....	H. J. Gage, L. Egleston, and G. J. Spanlding.....	224,526	Feb. 17	642	184	17	339
Harrow-tooth.....	W. S. Foster.....	227,683	May 18	689	196	17	1111



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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'th	Vol.	Page.
Harrow-tooth	W. Kelly	231,816	Aug. 31	1420	399	18	502
Harrow-tooth	G. Nimmo	228,551	June 8	470	126	17	1310
Harrow-tooth	P. A. Peer	224,722	Feb. 17	860	246	17	376
Harrow-tooth	F. G. Winnek	229,788	July 6	321	89	18	55
Harrow-tooth	G. C. Winslow	227,085	Apr. 27	1133	311	17	964
Harrow-tooth	W. Workman	229,224	June 22	1277	351	17	1445
Harrow-tooth attachment	S. C. Cobb	224,274	Feb. 10	349	100	17	281
Harrow-tooth attachment	S. C. Cobb	224,275	Feb. 10	351	100	17	281
Harrow-tooth. Spring	C. D. Carter	231,268	Aug. 17	787	220	18	388
Harrow-tooth. Spring	B. F. Eaton	232,119	Sept. 14	290	82	18	580
Harrow-tooth. Spring	A. P. Sprague	227,593	May 11	583	167	17	1085
Harrow. Torsion-spring-tooth	W. R. Skeels and W. H. Moore	235,578	Dec. 14	643	183	18	1396
Harrow. Wheel	F. Brammer	225,331	Mar. 9	423	123	17	540
Harrow. Wheel	G. G. Crowley	226,830	Apr. 27	826	230	17	916
Harrow. Wheel	C. La Dow	225,394	Mar. 9	487	142	17	551
Harrow. Wheel	C. Murray	229,548	July 6	51	14	18	16
Harrow. Wheel	L. Seivert	233,442	Oct. 19	815	225	18	887
Harrow and cultivators. Spring-tooth for	A. J. Nellis	234,321	Nov. 9	602	164	18	1095
Harvester	P. Barber	230,854	Aug. 10	311	91, 92	18	305
Harvester	S. D. Bates	231,526	Aug. 24	1067	300	18	440
Harvester	J. Bordwell	229,584	July 6	89	24	18	22
Harvester	W. H. Davis	232,632	Sept. 28	912	251	18	697
Harvester	W. E. Hart	230,019	July 13	591	164	18	105
Harvester	J. H. Jones and R. Emerson	228,359	June 1	223	63	17	1263
Harvester	C. A. Joslyn	230,284	July 20	916	260	18	165
Harvester	O. Kromer and F. Rinkleff	225,064	Mar. 2	103	29	17	474
Harvester	C. W. Levalley	228,540	June 8	453	123	17	1307
Harvester	S. D. Locke	233,781	Oct. 26	1217	338 339	18	965
Harvester	S. D. Maddin	234,375	Nov. 9	662	180 181	18	1105
Harvester	J. F. Mahon	230,302	July 20	934	266	18	168
Harvester	E. T. McCormick and J. W. Bashaw	232,048	Sept. 7	206	56	18	558
Harvester	W. F. Olin	223,812	Jan. 27	741	199 200	17	158
Harvester	A. Philippi	227,126	May 4	39	11, 12	17	985
Harvester	W. T. Utley	227,325	May 4	268	79	17	1022
Harvester	J. M. Wishart	228,154	May 25	1244	353	17	1211
Harvester and thrasher. Combined	C. J. F. Wilkins	225,449	Mar. 9	546	157 158	17	561
Harvester-brake	J. Jones and A. Phariss	226,451	Apr. 13	354	101	17	818
Harvester. Corn	W. S. Barnard	223,213	Jan. 6	3	1	17	3
Harvester. Corn	G. A. Harvey	235,869	Dec. 28	1010	279 280	18	1473
Harvester. Corn	J. W. Terman	231,867	Aug. 31	1485	416 417	18	511
Harvester. Corn	C. S. Willmeth	224,500	Feb. 10	600	173 174	17	322
Harvester. Cornstalk	W. I. Ely	232,474	Sept. 21	730	203	18	659
Harvester cutter-bar	J. Montross	230,887	Aug. 10	349	101	18	311
Harvester-gaveler	F. W. Randall	233,699	Oct. 26	1130	315	18	950
Harvester-gearing	T. M. Flenniken	229,993	July 13	565	156 157	18	101
Harvester. Grain	F. W. Randall	226,677	Apr. 20	637	177 178	17	874
Harvester. Hand-binding	S. Johnston	223,919	Jan. 27	873	232	17	178
Harvester-header elevator	T. J. Chappell	228,035	May 25	1113	316	17	1189
Harvester-knife grinder	J. N. Parker and J. F. Webster	223,449	Jan. 13	295	78	17	66
Harvester-rake	O. Cooley	225,971	Mar. 30	1191	339	17	702
Harvester-rake	D. L. Emerson	230,867	Aug. 10	324	95	18	308
Harvester-rake	P. Thompson	229,284	June 29	1352	371	17	1464
Harvester-reel	W. H. Akens	226,585	Apr. 20	532	149	17	857
Harvester-reel	W. H. H. Freeman	225,360	Mar. 9	452	132	17	545
Harvester-reel	J. M. Moore	225,854	Mar. 23	1032	297	17	663
Harvester-reel	J. Theobald	232,155	Sept. 14	326	93	18	585
Harvester-seats. Safety device for	W. J. and A. R. Shaw	232,655	Sept. 28	938	258	18	701
Harvester sickle-bar	J. D. James	229,417	June 29	1513	417	17	1485
Harvesters. Device for raising and lowering	J. F. Appleby	228,971	June 22	1011	275	17	1407
Harvesters. Head for compound cutter-bars for	W. Mason and W. R. Groat	233,666	Nov. 2	48	13	18	995
Harvesters, &c. Pivoted adjustable seat for	S. Hedges and L. B. Morgan	224,905	Feb. 24	1101	315	17	430
Harvesting-machine	R. H. Jones and J. L. Owens	223,356	Jan. 6	170	45	17	31
Harvesting-machine	D. Maxwell	235,548	Dec. 14	607	173	18	1390
Harvesting-machine	H. F. Shaw	228,786	June 15	784	214 215	17	1366
Hat and cap ventilator	F. W. Welz	233,384	Oct. 19	745	203	18	876
Hat and other head-covering	J. Heimann and M. T. Wall	227,527	May 11	507	145	17	1072
Hat and other head-covering. Celluloid	R. H. Trested	224,745	Feb. 17	887	253	17	380
Hat and other head-covering. Reversible	L. Girbardt	225,120	Mar. 2	165	47	17	484
Hat-bodies. Apparatus for felting	J. T. Waring	227,329	May 4	271	80	17	1022
Hat-bodies. Apparatus for felting	J. T. Waring	227,331	May 4	274	80	17	1023
Hat-bodies, &c. Art of and apparatus for felting	J. T. Waring	227,332	May 4	276	80	17	1023
Hat-bodies, &c. Felting	J. T. Waring	228,704	June 8	640	174	17	1335
Hat-bodies, &c. Machine for hardening and felting	J. G. Meeker	226,336	Apr. 6	214	62	17	785
Hat-bodies, &c. Machinery for felting	J. T. Waring	231,125	Aug. 10	607	172	18	353
Hat-bodies, &c. Machinery for felting	J. T. Waring	231,873	Aug. 31	1492	418	18	513
Hat-bodies. Process and apparatus for felting	J. T. Waring	227,330	May 4	273	80	17	1023
Hat-body	W. W. Thoman	234,505	Nov. 16	839	225	18	1143
Hat-brim	J. Ring	232,006	Sept. 7	226	63	18	561
Hat-brim edges. Machine for heating	F. G. Lamson and D. C. King	224,298	Feb. 10	378	107	17	285
Hat-brims and bands. Manufacture of	J. E. Peters	225,996	Mar. 30	1224	346	17	706
Hat-brims. Cord-edge for	J. S. Bancroft	233,912	Nov. 2	97	26	18	1003
Hat-brims. Machine for curling	J. Parker and T. Nichols	233,543	Oct. 19	929	256	18	907
Hat-brims. Machinery for stretching	A. Alexander	225,782	Mar. 23	957	276	17	650

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Hat. Felt	E. M. Leblicher	231,062	Aug. 10	538	152	18	341
Hat. Felt	R. S. Nickerson	227,044	Apr. 27	1081	298	17	956
Hat. Felt	E. W. Serrell, Jr.	231,854	Aug. 31	1468	412	18	510
Hat-felting machine	G. Yule	230,101	July 13	677	190	18	119
Hat-finishing machine	C. Kearcher and S. H. Edgett	234,783	Nov. 23	1200	324	18	1208
Hat-flanging machine	R. Clark, Jr.	228,606	June 8	540	144	17	1320
Hat-flanging machine	F. Law, Sr.	226,525	Apr. 13	447	125	17	832
Hat for wear in hot weather	J. C. Sebring	229,918	July 13	475	132	18	88
Hat-forming-machine feeder	P. Starr	230,833	Aug. 3	276	79	18	292
Hat-holder	G. W. Lindsey	226,087	Mar. 30	1325	373	17	732
Hat-ironing machine	R. S. Hedden and L. A. McCormick	234,569	Nov. 16	922	247	18	1157
Hat or other head-covering	J. Heimann and M. T. Wall	230,276	July 20	909	258	18	164
Hat pouncing and shaving machine	J. B. Brown	225,270	Mar. 9	332	97	17	527
Hat-pouncing machine	W. Keenan	226,323	Apr. 6	197	58	17	782
Hat-pouncing machine	C. J. Sargent	226,554	Apr. 13	477	134	17	837
Hat-pouncing machine	C. J. Sargent	235,574	Dec. 14	638	182	18	1396
Hat-pouncing machines. Attachment for	E. B. Taylor	232,860	Oct. 5	76	22	18	751
Hat-press	M. A. Cumming	226,041	Mar. 30	1279	360	17	715
Hat-pressing machine	W. Foster	226,393	Apr. 13	278	82, 83	17	807
Hat-rack, blacking-stand, &c. Combined	F. Vogel	233,580	Oct. 19	973	268	18	914
Hat sweat-leathers. Machine for stretching	A. Pelisse	226,348	Apr. 6	225	65	17	787
Hat-tip	J. Bigelow	225,096	Mar. 2	139	40	17	480
Hat. Ventilating	H. O. Pearce	225,235	Mar. 9	300	86	17	521
Hat. Ventilating	R. Ray	229,464	June 29	1569	433	17	1493
Hat. Ventilating	R. Ray	229,466	June 29	1573	434 435	17	1494
Hat-ventilator	E. Chesterman	229,870	July 13	427	118	18	80
Hats and bonnets. Manufacture of	W. Comey	234,852	Nov. 30	1225	348	18	1230
Hats and other uses. Fabric for sweat-bands for	R. Lanstrom	233,629	Oct. 26	1052		18	937
Hats. Finishing felt	S. Piron	230,813	Aug. 3	246	71	18	287
Hats. Finishing silk	D. M. Easton	235,141	Dec. 7	96		18	1297
Hats. Forming naps for	J. R. Russell	227,584	May 11	569	163	17	1082
Hats. Ironing apparatus for use in finishing felt	A. Ledue	231,724	Aug. 31	1307	368	18	484
Hats. Machine for flanging and curling	A. P. Quinby	231,098	Aug. 10	578	164	18	348
Hats, &c. Sweat for	T. W. Bracher	229,949	July 13	513	142	18	93
Hats. Ventilating straw	J. S. Bancroft	234,846	Nov. 30	1291	346	18	1229
Hatch-closer. Automatic	S. E. Stokes	229,486	June 29	1601	441	17	1497
Hatch. Skylight	S. J. Pardessus	226,625	Apr. 20	580	162	17	865
Hatcheling device	A. D. Cheney	231,998	Sept. 7	150	39	18	548
Hatchway	E. E. Furney	233,284	Jan. 6	93	23	17	18
Hatchway-door mechanism	W. I. Ely	227,421	May 11	386	113	17	1052
Hatchway-door mechanism	J. W. Evans	234,464	Nov. 16	795	213	18	1135
Hatchway-door mechanism	C. H. Mitchell	235,795	Dec. 21	900	251	18	1447
Hatchway-doors. Operating	E. N. Dickerson	223,322	Jan. 6	137	35	17	25
Hatchway-doors. Operating	G. W. Mouldin	224,213	Feb. 3	275	79	17	249
Hatchway fire attachment	G. J. Crikelair	234,969	Nov. 30	1437	387	18	1254
Hatchway-gate	F. H. Keeney	223,519	Jan. 13	383	102	17	80
Hatchway-gate mechanism	J. Marshall	234,919	Nov. 30	1374	370	18	1243
Hatchway-guard	W. I. Ely	228,747	June 15	732	201	17	1359
Hatchway-guard	G. Parker	228,925	June 15	941	256	17	1388
Hatchway-guard	W. Walker	235,048	Nov. 30	1531	412	18	1270
Hatchway-guard mechanism	T. F. Tyler	230,840	Aug. 3	285	81, 82	18	294
Hatchway-guard. Self-closing	E. G. Kendall	234,042	Nov. 2	269	73	18	1030
Hatchway safety-gate	F. M. Baker	229,657	July 6	164	45	18	33
Hauling clip or griper	J. Hanson	232,890	Oct. 5	116	31	18	757
Hay and cotton press	W. A. Pridgen	230,053	July 13	626	175	18	111
Hay and cotton press. Portable	T. C. Key	224,924	Feb. 24	1119	320	17	433
Hay and grain elevator	E. M. Deane	226,985	Apr. 27	1004	279	17	944
Hay and straw burners. Feeder for	W. Ford	229,110	June 22	1161	318	17	1428
Hay. Apparatus for slinging and elevating	M. Potter	229,553	July 6	55	15	18	16
Hay-barrack	L. Gillig	234,024	Nov. 2	247	67	18	1026
Hay-carrier	L. W. Noyes	229,170	June 22	1222	335	17	1437
Hay-elevator	L. Hoepner	233,759	Oct. 26	1198	332	18	962
Hay-elevator	A. H. Smith	234,083	Nov. 2	311	86	18	1038
Hay elevator and carrier	L. E. Miles	233,633	Oct. 26	1057	294	18	938
Hay elevator and carrier	G. Rundle	232,548	Sept. 21	811	224	18	673
Hay-fork and balance. Combined	G. L. Richardson	223,296	Jan. 6	112	28	17	20
Hay-fork. Horse	J. M. Boyd	235,065	Dec. 7	6	2	18	1282
Hay-fork. Horse	J. W. Livermore	233,524	Oct. 19	909	250	18	903
Hay-fork. Horse	J. A. McAnulty	233,533	Oct. 19	917	253	18	905
Hay-fork. Horse	L. Y. Myers and W. M. Mountain	227,041	Apr. 27	1077	297	17	956
Hay-gatherer	G. G. Frelinghuysen	231,959	Sept. 7	108	27	18	541
Hay-knife	D. E. Haskell	226,746	Apr. 20	709	197	17	885
Hay-knife	A. Zimmerer	226,146	Mar. 30	1392	392	17	733
Hay-loader	D. Bollinger	224,634	Feb. 17	770	218	17	360
Hay-loader	N. Fleck and O. R. Williams	232,397	Sept. 21	635	175	18	644
Hay-loader	J. Richards and H. E. Brandenburg	229,469	June 29	1578	436	17	1485
Hay-press	G. Ertel	227,681	May 18	686	195	17	1111
Hay-press	M. M. Hartsook	232,123	Sept. 14	294	83	18	580
Hay-press	N. W. Herring	224,907	Feb. 24	1103	315	17	430
Hay-press	L. B. Lathrop	225,396	Mar. 9	493	143	17	552
Hay-press	B. Tompkins	224,743	Feb. 17	884	252 253	17	380
Hay-press	B. M. Watts	234,509	Nov. 16	842	226	18	1143
Hay-press	W. A. Wright	228,503	June 8	411	113	17	1301
Hay-press. Traveling	P. Wright	230,100	July 13	674	189 190	18	119
Hay-rack	J. W. Eardly	232,014	Sept. 7	169	44	18	551
Hay-rack	W. P. Leland	224,451	Feb. 10	553	150	17	313
Hay-rake	J. F. Johnson and E. J. Parsons	223,921	Jan. 27	876	233	17	179
Hay rake and buncher	C. W. Allen	230,982	Aug. 10	454	130	18	327
Hay rake and loader	J. Barlow	230,222	July 20	838	237	18	154
Hay rake and loader	J. L. Beightle	234,741	Nov. 23	1149	309	18	1200
Hay rake and loader	A. Johnson and D. Dewey	224,782	Feb. 24	962	274	17	407
Hay rake and loader	D. Snyder	235,467	Dec. 14	510	147	18	1374

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Hay-rake. Horse.....	W. Adriance.....	229,349	June 29	1442	397	17	1475
Hay-rake. Horse.....	W. S. Bates.....	233,191	Oct. 12	486	134	18	825
Hay-rake. Horse.....	S. H. Bushnell.....	229,864	July 13	420	116	18	79
Hay-rake. Horse.....	M. Butler.....	223,316	Jan. 6	130	33	17	24
Hay-rake. Horse.....	J. B. Fogt.....	224,893	Feb. 24	1088	312	17	428
Hay-rake. Horse.....	T. Galloway and J. Larsen.....	229,530	July 6	28	7	18	12
Hay-rake. Horse.....	S. B. Gilliland.....	235,227	Dec. 7	203	55	18	1314
Hay-rake. Horse.....	T. B. Reed and G. Rogers.....	231,358	Aug. 17	879	247	18	403
Hay-rake. Horse.....	S. Ritty.....	223,247	Jan. 6	47	11	17	10
Hay-rake. Horse.....	W. D. Stroud.....	223,553	Jan. 13	420	112	17	86
Hay-rake. Horse.....	I. Q. Williams and G. H. Osborn.....	230,593	July 27	1307	368	18	236
Hay-rake. Horse.....	J. B. Witter.....	237,604	May 11	595	170	17	1087
Hay-rake. Revolving.....	J. S. Oberholtzer.....	224,718	Feb. 17	856	244	17	376
Hay raker and loader.....	D. W. Boyce.....	231,391	Aug. 24	923	260	18	417
Hay ricking and loading device.....	J. E. Kirk.....	229,424	June 29	1520	420	17	1486
Hay-stack cover.....	D. W. Boyce and W. H. Palmer.....	226,900	Apr. 27	902	251	17	928
Hay-stacking device.....	M. R. Jenkins.....	235,088	Dec. 7	31	10	18	1286
Hay-tedder.....	J. Barker.....	231,980	Sept. 7	134	34	18	545
Hay-tedder.....	J. M. Burdick.....	226,711	Apr. 20	673	187	17	880
Hay-tedder.....	R. J. Clark.....	231,211	Aug. 17	728	204	18	378
Hay-unloader.....	F. Patrick.....	226,457	Apr. 13	361	103	17	819
Head-block.....	A. Rodgers.....	228,937	June 15	954	259	17	1390
Head-blocks. Elevated scale-beam for.....	J. A. Reynolds.....	232,302	Sept. 14	508	142	18	617
Head-light.....	J. Hirth.....	227,628	May 18	625	179	17	1102
Head-light case.....	R. C. Greenland.....	227,763	May 18	786	222	17	1126
Head-light. Locomotive.....	W. Kelley.....	234,410	Nov. 16	731	197	18	1125
Head-light. Locomotive.....	I. A. Williams.....	235,924	Dec. 28	1080	299 300	18	1484
Head-light. Signal.....	M. Nichelson.....	225,299	Mar. 9	385	113	17	533
Head-rest.....	T. J. Carrick.....	223,276	Jan. 6	82	20	17	16
Head-rest.....	F. M. Hibbard.....	231,578	Aug. 24	1129	316	18	449
Head-rest.....	H. D. Stiles.....	229,062	June 22	1108	301	17	1420
Header. Guiding.....	W. H. Keen.....	228,260	June 1	121	35	17	1246
Hearse-curtain fixture.....	A. Turnbull.....	228,702	June 8	638	173	17	1335
Heat. Generating artificial.....	B. N. Hnestis.....	234,190	Nov. 9	448	.....	18	1069
Heat. Porous or spongy mineral composition and non-conductor of.....	D. C. Sanford.....	230,151	July 20	759	.....	18	141
Heat-regulator.....	L. C. Baldwin.....	227,201	May 4	132	38	17	999
Heater:							
See Air-engine heater. Sad-iron heater.							
Barrel-heater. Solar heater.							
Car-heater. Soldering-iron heater.							
Dish-heater. Steam-heater.							
Feed-water heater. Stove-boiler heater.							
Fire-place heater. Water-heater.							
Flat-iron heater. Wheat-heater.							
Grain-heater.							
Heater and ventilator.....	H. J. Andersen.....	235,486	Dec. 14	530	153	18	1378
Heater or furnace.....	E. P. Penniman, Sr.....	223,450	Jan. 13	296	78	17	66
Heating and puddling furnace.....	J. Lukens.....	227,277	May 4	213	63	17	1013
Heating and ventilating.....	C. M. Woodward.....	227,709	May 18	720	203	17	1116
Heating and ventilating apparatus.....	J. W. Geddes.....	228,188	June 1	34	11	17	1232
Heating and ventilating houses, &c.....	A. K. Campbell.....	230,237	July 20	854	241	18	156
Heating apparatus.....	T. Connelly.....	233,328	Oct. 19	677	186	18	865
Heating apparatus. Steam.....	N. Coombs.....	234,705	Nov. 23	1106	298	18	1193
Heating apparatus. Steam.....	J. L. Harley.....	226,745	Apr. 20	708	197	17	885
Heating device. Tool.....	E. B. Powers and J. H. Stevens.....	233,801	Oct. 26	1241	345	18	970
Heating-furnace.....	W. C. Miller.....	231,442	Aug. 24	975	275	18	426
Heating-furnace.....	J. J. Richardson.....	228,119	May 25	1205	343	17	1205
Heating-furnace.....	J. L. Trefren.....	230,837	Aug. 3	281	80	18	293
Heating railway and other carriages.....	A. Ancelin.....	224,507	Feb. 17	618	.....	17	335
Heddle-frame.....	S. Sewall, Jr.....	234,077	Nov. 2	303	84	18	1037
Heddles. Machine for making wire.....	J. H. Williams.....	235,602	Dec. 14	669	189	18	1401
Heddles. Machine for manufacturing wire.....	A. Argo.....	233,593	Oct. 26	1012	282	18	930
Hedge-fence layer.....	F. Poole.....	225,073	Mar. 2	116	32, 33	17	476
Hedge-trimmer.....	D. W. Burroughs.....	231,396	Aug. 24	927	262	18	418
Hedge-trimmer.....	M. J. Cunningham and J. P. Bailey.....	223,485	Jan. 13	345	92	17	74
Hedge-trimmer.....	M. J. Cunningham and J. P. Bailey.....	231,282	Aug. 17	801	225	18	390
Hedge-trimmer.....	I. A. Dodge.....	233,485	Oct. 19	861	238	18	895
Heel.....	R. D. Plunkett and J. P. Rollins.....	235,290	Dec. 7	273	76	18	1326
Heel and shank supporter.....	D. F. McKittrick.....	227,808	May 18	833	235	17	1134
Heel-burnishing machine.....	C. J. Addy.....	235,115	Dec. 7	61	19	18	1291
Heel leveling and surfacing machine.....	G. McKay and H. P. Fairfield.....	224,025	Feb. 3	61	18, 19	17	213
Heel-piles. Machine for forming.....	C. W. Glidden.....	224,012	Feb. 3	47	15	17	211
Heel-plate.....	J. A. Cole.....	226,720	Apr. 20	682	190	17	881
Heel-polishing machine.....	W. Joint.....	231,673	Aug. 31	1246	350	18	475
Heel. Rubber.....	H. Pennie.....	232,900	Oct. 5	127	33	18	759
Heel, shank, and counter supporter.....	H. Flindt.....	231,554	Aug. 24	1102	309	18	445
Heel-shavo.....	O. E. Dunham.....	223,583	Jan. 13	458	124	17	92
Heel-slicing machine.....	C. W. Glidden.....	224,011	Feb. 3	45	14	17	211
Heel-stiffener and counter-support.....	A. S. Robinson.....	226,702	Apr. 20	756	211	17	893
Heel-stiffeners. Mechanism for the manufacture of.....	R. Glover.....	233,848	Nov. 2	28	7	18	991
Heel-trimmer.....	F. Moulton.....	233,108	Oct. 12	389	107	18	808
Heel-trimming machine.....	H. A. Henderson.....	224,533	Feb. 17	648	186	17	340
Heel-trimming machine.....	J. Langlois.....	229,426	June 29	1522	420	17	1486
Heel-trimming machine.....	J. J. Ross.....	226,199	Apr. 6	61	15, 16	17	757
Heels. Apparatus for shaping wooden.....	D. A. Sutherland.....	230,157	July 20	765	213	18	142
Heeling-machine.....	R. M. Harrison.....	233,504	Oct. 19	881	243	18	898
Hermetically-sealed jar.....	L. Lenglet.....	229,537	July 6	38	10	18	14
Hides and skins. Machine for shaving and fleshing.....	A. Gerard.....	224,286	Feb. 10	365	104	17	283
Hides and skins. Process of and machinery for softening.....	W. Coupe.....	234,248	Nov. 9	516	142	18	1081
Hides and skins. Softening, plumping, and depilating.....	J. Foley.....	226,447	Apr. 13	349	.....	17	817
Hides. Machine for ascertaining the area of.....	J. S. Wentworth.....	233,791	June 15	789	216	17	1367

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Hides. Machine for shaving wool or hair from.	J. Curson.	234,542	Nov. 16	883	235	18	1150
Hides. Machine for treating raw.	A. C. Krueger.	235,442	Dec. 14	474	134	18	1368
Hides. Machine for working raw.	O. E. Drown.	229,981	July 13	546	152	18	99
High-back comb.	E. Brown.	232,449	Sept. 21	706	195	18	655
Hinge.	T. Fowler.	234,018	Nov. 2	241	66	18	1025
Hinge.	J. J. Gordon.	226,306	Apr. 6	182	53	17	779
Hinge.	D. A. Green and J. H. Roberts.	225,980	Mar. 30	1203	341	17	703
Hinge.	J. T. Morgan.	232,747	Sept. 23	1042	286	18	719
Hinge.	P. A. Peer.	230,491	July 27	1197	337	18	217
Hinge. Awning-blind.	F. B. Brown.	235,927	Dec. 28	1087	301	18	1485
Hinge. Awning-blind.	C. P. Dearborn.	231,655	Aug. 31	1227	345	18	472
Hinge. Awning-blind.	T. O. Memery.	223,937	Jan. 27	897	238	17	182
Hinge. Awning-blind.	W. S. Stockman.	230,355	July 20	998	283	18	179
Hinge-blanks. Die for making sheet-metal.	J. W. A. Beers.	233,135	Oct. 12	423	116	18	814
Hinge. Door.	J. Decombe.	235,417	Dec. 14	439	124	18	1362
Hinge for earthenware or glassware.	J. N. Taylor.	227,137	May 4	57	16	17	987
Hinge for folding bedsteads.	H. A. J. Ricckert.	234,334	Nov. 9	616	168	18	1098
Hinge for lounges. Extension.	W. Seng.	231,935	Sept. 7	64	16	18	535
Hinge. Gate.	J. L. Anderson.	234,382	Nov. 16	698	187	18	1119
Hinge. Gate.	D. W. Barr.	233,394	Oct. 19	760	208	18	879
Hinge. Gate.	W. H. Bond.	235,500	Dec. 14	551	157	18	1381
Hinge. Gate.	J. E. Davis.	223,890	Jan. 27	837	223	17	173
Hinge. Gate.	W. W. Robinson.	227,838	May 18	863	246	17	1139
Hinge. Lock.	J. Broughton.	233,975	Nov. 2	180	46	18	1016
Hinge. Lock.	M. L. Cummings.	226,042	Mar. 30	1379	360	17	715
Hinge. Lock.	A. H. Hugnet.	232,128	Sept. 14	299	84	18	581
Hinge. Lock.	W. S. Stockman.	226,684	Apr. 20	646	179	17	875
Hinge. School-slate.	J. M. Waters.	234,215	Nov. 9	483	132	18	1075
Hinge. Spring.	L. Bommer.	228,304	June 1	172	48	17	1254
Hinge. Spring.	D. W. Housley.	227,786	May 18	811	229	17	1140
Hinge. Spring.	G. Keene.	231,053	Aug. 10	527	148	18	339
Hinge. Spring.	G. M. Lane.	230,949	Aug. 10	412	119	18	321
Hinge. Spring.	J. Spruce.	233,569	Oct. 19	962	265	18	912
Hinge. Spring.	J. Spruce.	235,468	Dec. 14	511	147	18	1374
Hinge. Store-door.	I. Maguire.	231,184	Aug. 17	691	194	18	372
Hinge. Strap.	B. D. Washburn.	236,124	Dec. 28	1326	364	18	1524
Hinge. Wire.	G. D. Dudley and S. Mansfield.	235,859	Dec. 28	999	277	18	1471
Hinges. Manufacture of.	C. Lanz.	231,590	Aug. 24	1145	320	18	452
Hitching-bar for animals.	J. W. Ricker.	224,356	Feb. 10	444	128	17	296
Hitching device.	S. S. Cole.	230,922	Aug. 10	386	111	18	317
Hitching device.	C. E. Dyer and W. Parsons.	227,100	May 4	10	3	17	950
Hitching device. Horse.	R. Seiders.	224,560	Feb. 17	679	194	17	345
Hitching post.	S. M. Furman.	224,083	Feb. 3	132	38	17	225
Hitching post.	C. L. Peirce.	230,049	July 13	622	173	18	110
Hitching-strap.	J. C. Covert.	228,322	June 1	189	53	17	1258
Hitching-strap.	J. D. Stottemeyer.	236,107	Dec. 28	1299	356	18	1520
Hod-elevator.	E. B. Demarest.	231,021	Aug. 10	497	140	18	334
Hoe.	R. G. S. Austin.	232,916	Oct. 5	148	39	18	762
Hoe.	J. W. Ellis.	226,050	Mar. 30	1286	362	17	717
Hoe.	F. J. Fischer.	232,700	Sept. 28	989	272	18	710
Hoe.	J. W. Gladding.	231,306	Aug. 17	824	231	18	394
Hoe.	J. Kiefer.	230,552	July 27	1260	355	18	223
Hoe and rake.	I. A. Murchison.	225,157	Mar. 2	200	56	17	491
Hoe. Ditching.	H. and L. Iwan.	230,130	July 20	733	205	18	137
Hoe. Hand.	R. L. Turner.	226,573	Apr. 13	495	139	17	840
Hoe. Tobacco.	O. W. Goslee.	233,849	Nov. 2	29	7	18	991
Hoes and other tools. Eye for.	J. R. Thomas.	228,419	June 1	287	81	17	1273
Hoes. Manufacture of.	A. Reese.	232,301	Sept. 14	507	141	18	617
Hog and cattle vat.	E. Ellis.	225,514	Mar. 16	637	186	17	586
Hog catching and holding device.	O. Ewing.	235,675	Dec. 21	758	215	18	1423
Hog-cholera compound.	T. Arnold.	223,429	Jan. 13	275		17	63
Hog-cholera compound.	W. Benton.	224,989	Mar. 2	9		17	458
Hog-cholera compound.	E. Y. Salmon.	230,672	Aug. 3	93		18	261
Hog-cholera remedy.	J. Bolton.	230,997	Aug. 10	468		18	329
Hog-cholera remedy.	W. H. Emerick.	233,083	Oct. 12	353		18	803
Hog-cholera remedy.	S. M. Youree.	231,137	Aug. 10	621		18	355
Hog-holder and nose-ring carrier.	W. A. Stark.	228,286	June 1	155	43	17	1252
Hog-nose cutter.	R. Sr., and R. Pemble, Jr., and J. H. Hayes.	233,694	Oct. 26	1124	313	18	949
Hog-ring.	J. Peery.	224,349	Feb. 10	436	125	17	295
Hog-rings. Machine for making.	P. Drais.	233,606	Oct. 26	1024	285	18	932
Hog-ringing tool.	J. Heesen.	226,915	Apr. 27	921	256	17	931
Hog-scraping machine.	J. Bouehard.	235,731	Dec. 21	827	232	18	1434
Hog-trough.	W. G. Vincent.	225,309	Mar. 9	396	115	17	535
Hoist. Lumber.	J. J. Hennessy.	223,227	Jan. 6	21	5	17	6
Hoisting and conveying machine.	A. E. Brown.	232,236	Sept. 14	428	118 } 119 }	18	604
Hoisting and dumping apparatus.	C. A. Haring.	228,754	June 15	740	204	17	1360
Hoisting and loading apparatus.	J. Fisher.	229,528	July 6	24	6, 7	18	12
Hoisting apparatus.	C. E. Albro.	232,386	Sept. 21	625	172	18	642
Hoisting apparatus.	J. P. La Bar.	229,149	June 22	1202	329	17	1434
Hoisting apparatus. Differential-pulley.	B. Hinsley.	233,246	Oct. 12	553	153	18	837
Hoisting apparatus for elevators, &c.	N. B. Cusbing.	232,338	Sept. 21	559	154 } 155 }	18	631
Hoisting apparatus for mining-shafts.	T. C. Histed.	235,681	Dec. 21	763	217	18	1423
Hoisting, carrying, and dumping device.	E. Day.	231,767	Aug. 31	1354	381	18	492
Hoisting device.	B. Goodman.	229,999	July 13	572	159	18	102
Hoisting device.	S. B. Segur.	224,433	Feb. 10	583	168	17	319
Hoisting-drums. Reversing-gear and brake mechanism for.	S. J. Chapman.	230,613	Aug. 3	19	5	18	250
Hoisting-engine. Hydraulic.	H. G. Morris.	234,053	Nov. 2	279	76	18	1032
Hoisting-engine. Portable.	L. H. Hall.	227,104	May 4	16	5	17	981
Hoisting-jack.	D. W. Smith.	225,882	Mar. 23	1065	304	17	668
Hoisting-machine.	J. G. Austin.	224,322	Feb. 10	406	115	17	290

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Hoisting-machine .....	W. H. Lotz .....	234,714	Nov. 23	1117	{ 301	18	1195
Hoisting-machine .....	W. H. Lotz .....	235,366	Dec. 14	379	{ 302		
Hoisting-machine .....	T. W. R. McCabe .....	231,966	Sept. 7	116	29	18	1352
Hoisting-machine .....	H. J. Reedy .....	235,649	Dec. 21	730	208	18	542
Hoisting-machine brake .....	W. R. Eckart and H. C. Behr .....	231,776	Aug. 31	1365	{ 383	18	493
Hoisting system .....	Z. Blanchet .....	235,121	Dec. 7	68	{ 384		
Holdback .....	W. L. Gilchrist .....	235,226	Dec. 7	202	55	18	1292
Holdback. Harness .....	J. Knight and H. Hilliard .....	224,926	Feb. 24	1120	320	17	1314
Holdback. Vehicle .....	A. B. Douglas .....	226,652	Apr. 20	611	171	17	433
Holdback. Vehicle .....	G. W. Hinkle .....	225,603	Mar. 16	733	217	17	869
Holdback. Vehicle .....	J. D. Wadkins .....	228,006	May 25	1090	310	17	604
Holder:							1185
See Bag-holder. Liquid-holder.							
Bag and twine hold- Mail-bag-lock holder.							
er. Mail-lock-label holder.							
Billiard-chalk hold- Milk-pail holder.							
er. Mop-holder.							
Bolt-holder. Music-holder.							
Book-holder. Necktie or scarf holder.							
Bracket-holder. Package-holder.							
Braid-holder. Pantaloon-holder.							
Broom-holder. Paper-holder.							
Broom and brush Pen-holder.							
holder. Pencil and crayon holder.							
Brush-holder. Photographic-plate hold-							
Candle-holder. er.							
Card-holder. Pillow-sham holder.							
Christmas - tree Pin-holder.							
holder. Rein-holder.							
Christmas-tree-can- Ribbon-holder.							
dle holder. Sand-paper holder.							
Clothes-line holder. Sash-holder.							
Coin-holder. Scarf and necktie holder.							
Copy-holder. Shade-holder.							
Cuff-holder. Shoe-holder.							
Egg-holder. Sickle-holder.							
Eyeglass-holder. Sponge-holder.							
File-holder. Stereotype-holder.							
Grindstone tool- Sunshade-holder.							
holder. Tablet-holder.							
Hat-holder. Tape, &c., holder.							
Hog-holder. Thread and pin holder.							
Instep-holder. Ticket-holder.							
Knife and fork Tool-holder.							
holder. Type and space holder.							
Label-holder. Umbrella-holder.							
Lamp-shade holder. Wagon-hound-brace hold-							
Lantern-holder. er.							
Lead and crayon Water-holder.							
holder. Whip and rein holder.							
Holding-tool .....	J. S. Birch .....	228,860	June 15	873	238	17	1378
Hominy-mill .....	C. S. Day .....	232,693	Sept. 28	983	270	18	709
Hominy-mill .....	G. B. Gaines .....	233,341	Oct. 19	691	189	18	867
Honey-comb foundations. Making .....	A. F. Bonham .....	234,226	Nov. 9	495	136	18	1077
Honey-extractor. Centrifugal .....	J. W. and C. M. Cole .....	224,654	Feb. 17	793	224	17	364
Hood .....	S. N. Burridge .....	232,934	Oct. 5	167	44	18	765
Hoof-parer .....	J. York .....	228,160	May 25	1251	355	17	1212
Hoof-protector .....	J. D. Lewis .....	224,704	Feb. 17	843	240	17	373
Hook:							
See Back-band hook. Lacing-hook.							
Bench-hook. Matched hook.							
Bracket-hook. Meat-hook.							
Cant-hook. Metallic hook.							
Carriage - boot - flap Picture-hook.							
hook. Reed-hook.							
Check-hook. Safety-hook.							
Clothes-hook. Self-locking hook.							
Coat-hook. Snap-hook.							
Cornice-hook. Swivel-hook.							
Eyeglass-hook. Trace-hook.							
Fish-hook. Tug-hook.							
Hame-hook. Whiffletree-hook.							
Harness-hook. Wire hook.							
Harness check-hook.							
Hook and buckle. Combined .....	T. Padgitt .....	223,532	Jan. 13	398	106	17	83
Hook and eye fastener .....	B. Schleifer .....	226,793	Apr. 20	757	211	17	893
Hook for catching animals and fowls .....	J. Keller, Jr. ....	235,154	Dec. 7	114	32	18	1300
Hooks. Manufacture of screw .....	W. H. Richards .....	231,613	Aug. 24	1168	326	18	455
Hoop:							
See Barrel-hoop. Toy hoop.							
Cheese-hoop.							
Hoop .....	J. B. Dougherty .....	233,487	Oct. 19	864	239	18	895
Hoop and method of dressing and coiling hoops. Bar-	J. Naylor, Jr. ....	233,870	Nov. 2	51	14	18	996
rel.							
Hoop-bending machine .....	J. W. Jones .....	225,222	Mar. 9	284	82	17	518
Hoop-coiling machine .....	A. F. Ward .....	223,968	Jan. 27	931	249	17	188
Hoop dressing and finishing machine. Barrel .....	D. H. Burrell and J. Naylor, Jr. ....	233,471	Oct. 19	847	{ 233	18	892
					{ 234		
Hoop-iron. Apparatus for bundling .....	W. P. Breeding .....	227,953	May 25	1024	292	17	1176
Hoop-lock cutter .....	H. A. and W. Tripp .....	223,824	Jan. 27	757	{ 202	17	160
					{ 203		
Hoop machine. Barrel .....	G. W. McArthur .....	232,198	Sept. 14	382	106	18	595



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Hoop machine. Barrel.....	W. E. McLeod.....	231,882	Aug. 31	1502	421	18	514
Hoop machine. Barrel.....	G. A. Raupp.....	225,075	Mar. 2	118	33	17	477
Hoop-shaving machine.....	A. Jones.....	235,250	Dec. 7	226	61	18	1318
Hoops from the log. Machine for cutting barrel.....	D. H. Burrell and J. Naylor, Jr.....	233,472	Oct. 19	849	234	18	893
Hoops. Machine for pointing and lapping wooden barrel.....	J. Naylor, Jr.....	233,538	Oct. 19	923	255	18	906
Hop-picking machine.....	S. D. Locke.....	223,854	Jan. 27	790	{ 211 212 213 }	17	165
Hop-press.....	H. W. Mahan.....	224,097	Feb. 3	149	42	17	228
Hops for preservation. Treatment of.....	L. Naumann and C. Pohl.....	223,602	Jan. 13	479		17	96
Hopper for middlings, &c. Feeding.....	J. T. Cook.....	231,010	Aug. 10	481	137	18	331
Hopple.....	C. J. Gustavson.....	234,562	Nov. 16	911	245	18	1155
Horn and shell goods. Manufacture of.....	L. Tillinghast.....	225,247	Mar. 9	314	89	17	523
Horse-blanket.....	F. M. Osborn.....	233,275	Oct. 12	586	162	18	843
Horse blanket and cover.....	I. E. Palmer.....	224,468	Feb. 10	569	164	17	316
Horse-boot.....	U. Millman.....	235,447	Dec. 14	462	136	18	1370
Horse-cover.....	C. E. Wallin.....	227,328	May 4	270	79	17	1022
Horse-detacher.....	W. G. Cummins.....	227,740	May 18	763	215	17	1122
Horse-detacher.....	J. Fisk.....	234,664	Nov. 23	1062	286	18	1186
Horse-detacher.....	H. T. Fuston and W. G. Cummins.....	229,116	June 22	1168	320	17	1429
Horse-detacher.....	J. A. Harman.....	232,027	Sept. 7	185	50	18	554
Horse-detacher.....	S. June.....	230,285	July 20	917	261	18	165
Horse-detacher.....	A. Ohlson.....	227,891	May 18	843	239	17	1136
Horse-detacher.....	I. B. Shaw.....	224,614	Feb. 17	751	213	17	357
Horse-detacher.....	C. B. Sibert.....	226,560	Apr. 13	483	136	17	838
Horse-detacher.....	J. S. Smith.....	232,082	Sept. 7	248	68	18	564
Horse-detacher.....	C. H. Thompson.....	232,571	Sept. 21	829	230	18	677
Horse-detacher.....	J. T. Willis.....	223,424	Jan. 6	243	64	17	44
Horse-detaching apparatus.....	C. H. Brazeal.....	229,087	June 22	1137	310	17	1425
Horse-detaching apparatus.....	W. S. Martin.....	233,530	Oct. 19	915	252	18	904
Horse-detaching device.....	J. A. Copeland.....	230,241	July 20	859	243	18	156
Horse-foot cooler and moistener.....	C. A. Root.....	226,628	Apr. 20	587	164	17	866
Horse-foot protector.....	C. W. Grece.....	226,848	Apr. 27	838	233	17	918
Horse-hitcher.....	I. F. Alger.....	233,654	Oct. 26	1082	301	18	942
Horse-hitching device.....	J. F. Keiper.....	233,421	Oct. 19	793	219	18	884
Horse-holding device for vehicles.....	N. Oley.....	235,282	Dec. 7	263	73	18	1321
Horse-hoof expander.....	D. Magner.....	229,832	July 13	383	106	18	73
Horse-hoof pad.....	A. J. Lockie.....	228,262	June 1	129	36	17	1247
Horse-power.....	R. M. Beebe.....	223,875	Jan. 27	822	219	17	170
Horse-power.....	W. Deering.....	227,155	May 4	82	22	17	991
Horse-power.....	W. H. De Loach.....	231,410	Aug. 24	939	266	18	420
Horse-power.....	J. H. Elward.....	227,745	May 18	767	216	17	1123
Horse-power.....	W. W. Garland.....	232,484	Sept. 21	742	206	18	661
Horse-power.....	L. W. Hasselman.....	233,413	Oct. 19	785	216	18	882
Horse-power.....	J. R. Massey.....	234,682	Nov. 23	1085	291	18	1190
Horse-power.....	W. A. Means.....	227,282	May 4	218	64	17	1014
Horse-power.....	M. Morton.....	227,037	Apr. 27	1066	296	17	955
Horse-power.....	J. R. Patterson.....	235,011	Nov. 30	1487	400	18	1263
Horse-power.....	L. B. Perkins.....	227,293	May 4	228	67	17	1016
Horse-power.....	J. Piggott.....	226,784	Apr. 20	745	208	17	892
Horse-power.....	S. Scott.....	231,364	Aug. 17	886	249	18	404
Horse-power.....	W. J. Stevens.....	230,587	July 27	1297	{ 365 366 }	18	235
Horse-power.....	R. C. Wade.....	225,445	Mar. 9	543	156	17	560
Horse-power.....	W. A. Wright.....	228,504	June 8	412	113	17	1301
Horse-power attachment.....	R. D. Norton.....	226,671	Apr. 20	631	176	17	873
Horse-power. Endless-chain.....	H. Y. Krauss.....	224,445	Feb. 10	546	157	17	312
Horse-power equalizer.....	W. T. G. Cobb.....	228,173	June 1	15	5	17	1229
Horse-power equalizer.....	J. T. Warren.....	228,576	June 8	502	135	17	1314
Horse-power for gins, &c.....	W. H. Harvey.....	229,407	June 29	1504	415	17	1483
Horse-power for gins, &c.....	W. H. Harvey.....	233,244	Oct. 12	550	153	18	837
Horse-power machine.....	W. H. Hooker.....	227,900	May 25	958	275	17	1166
Horse-power sweep.....	J. Branning.....	228,307	June 1	174	49	17	1255
Horse-power. Tread or railway.....	P. K. Dederick.....	231,656	Aug. 31	1228	{ 345 346 }	18	472
Horse-powers. Spring draft attachment for.....	A. E. Morris.....	226,097	Mar. 30	1338	377	17	724
Horse quarter-boot.....	E. Barnard.....	225,547	Mar. 16	673	196	17	592
Horse-rake.....	J. H. Barley.....	233,133	Oct. 12	421	116	18	814
Horse-rake.....	G. G. Frelinghuysen.....	231,787	Aug. 31	1382	390	18	496
Horse-rake.....	H. C. Herchelrode.....	225,602	Mar. 16	732	216	17	604
Horse-rake.....	J. Hollingsworth.....	231,170	Aug. 17	675	190	18	370
Horse-rake.....	F. E. Kohler.....	225,290	Mar. 9	375	{ 109 110 }	17	532
Horse-rake.....	F. E. Kohler.....	234,988	Nov. 30	1459	393	18	1258
Horse-rake.....	B. Owen.....	225,716	Mar. 23	875	256	17	638
Horse-rake.....	G. H. Smith.....	225,885	Mar. 23	1067	305	17	669
Horse safety-pad.....	E. R. Cahoon.....	235,339	Dec. 14	351	96	18	1347
Horse-stopping attachment for wagons.....	G. W. Blake.....	232,441	Sept. 21	693	191	18	653
Horse-toe-weight.....	D. and D. Roberge, Jr.....	224,955	Feb. 24	1148	328	17	437
Horse-toe-weight.....	C. S. Woodruff.....	230,385	July 20	1033	292	18	184
Horses. Apparatus for breaking and subduing.....	D. Magner.....	229,541	July 6	43	12	18	14
Horses. Apparatus for cleaning.....	M. J. Snaderlin.....	226,565	Apr. 13	487	137	17	839
Horses. Apparatus for holding.....	D. E. Middleton.....	225,715	Mar. 23	875	256	17	638
Horses from running away or kicking. Apparatus for preventing.....	S. Kingsland.....	223,447	Jan. 13	294	78	17	66
Horses from running. Device for preventing.....	H. A. Lehman.....	228,085	May 25	1172	333	17	1199
Horses' hoofs. Appliance for.....	S. D. Spence.....	230,155	July 20	763	212	18	142
Horses. Mouth-shield for.....	W. Bryden.....	230,401	July 27	1086	306	18	199
Horses. Safety appliance for releasing.....	B. F. Strange.....	225,179	Mar. 2	223	63	17	494
Horses. Vehicle device for hitching.....	O. Dunkel.....	226,653	Apr. 20	612	171	17	870
Horseshoe.....	C. A. J. Campbell.....	231,953	Sept. 7	91	24	18	538
Horseshoe.....	J. T. Cochran.....	224,276	Feb. 10	352	101	17	281

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & Co.	Vol.	Page.
Horseshoe.....	H. W. Grage.....	233,234	Oct. 12	537	150	18	834
Horseshoe.....	D. Hudson.....	223,737	Jan. 20	637	171	17	130
Horseshoe.....	W. H. Hulings.....	228,533	June 8	446	121	17	1306
Horseshoe.....	J. N. Navin.....	234,717	Nov. 23	1121	302	18	1196
Horseshoe.....	G. L. Potvin.....	226,879	Apr. 27	881	245	17	925
Horseshoe.....	J. M. Rouchel.....	226,422	Apr. 13	316	92	17	812
Horseshoe.....	D. B. Stephens.....	234,695	Nov. 23	1099	295	18	1192
Horseshoe.....	A. M. Truax.....	228,492	June 8	401	110	17	1300
Horseshoe.....	J. R. Williams.....	225,260	Mar. 9	323	94	17	525
Horseshoe.....	H. G. Yates.....	235,604	Dec. 14	672	190	18	1401
Horseshoe-bar.....	J. D. Billings.....	228,974	June 22	1014	276	17	1407
Horseshoe-bending machine.....	J. R. Williams.....	225,257	Mar. 9	321	93	17	525
Horseshoe-blanks. Creasing-machine for.....	J. R. Williams.....	225,253	Mar. 9	318	91	17	524
Horseshoe-blanks. Machine for bending and forging.....	F. Holub and C. S. Locke.....	227,008	Apr. 27	1030	{ 285 286 }	17	949
Horseshoe-blanks. Machine for creasing, punching, and swaging.....	F. Holub and C. S. Locke.....	227,009	Apr. 27	1032	{ 286 287 }	17	949
Horseshoe-blanks. Machine for cutting off.....	J. R. Williams.....	225,252	Mar. 9	317	90, 91	17	524
Horseshoe-blanks. Machine for trimming.....	J. R. Williams.....	225,254	Mar. 9	319	92	17	524
Horseshoe-blanks. Machine for trimming.....	J. R. Williams.....	225,255	Mar. 9	320	92	17	525
Horseshoe-blanks. Roll for.....	H. J. Batchelder.....	234,942	Nov. 30	1400	{ 376 377 }	18	1247
Horseshoe-calk sharpener.....	J. Low.....	226,408	Apr. 13	300	87	17	810
Horseshoe-calks. Securing.....	O. Lampe.....	236,046	Dec. 28	1226	338	18	1508
Horseshoe-machine.....	J. H. Dorgan.....	230,180	July 20	789	{ 222 223 }	18	146
Horseshoe-machine.....	G. C. Pyle.....	234,200	Nov. 9	402	{ 125 126 }	18	1071
Horseshoe-machine.....	J. H. Snyder.....	231,113	Aug. 10	593	168	18	351
Horseshoe-machine.....	E. W. Tyrrell.....	230,450	July 27	1150	{ 323 324 325 }	18	209
Horseshoe-nail.....	T. Doyle.....	233,334	Oct. 19	684	188	18	866
Horseshoe-nail.....	J. J. Mervesp.....	226,240	Apr. 6	108	29	17	765
Horseshoe-nail.....	C. M. Talcott, A. W. C. Williams, and G. J. Capewell.....	226,254	Apr. 6	119	33	17	767
Horseshoe-nail blanks. Machine for finishing.....	L. Weaver.....	223,560	Jan. 13	430	114	17	88
Horseshoe-nail machine.....	J. M. Laughlin.....	230,950	Aug. 10	413	{ 119 120 }	18	321
Horseshoe-nail machine.....	J. Roy.....	228,220	June 1	70	21	17	1239
Horseshoe-nail machine.....	L. W. Whipple.....	228,792	June 15	790	{ 216 217 }	17	1367
Horseshoe-nail plates. Manufacture of.....	H. M. Laughlin.....	233,357	Oct. 19	712	194	18	870
Horseshoe-nails. Machine for finishing.....	J. A. Wills.....	224,062	Feb. 3	107	31, 32	17	221
Horseshoe-nails. Machine for forging.....	J. A. Hutchinson.....	232,353	Sept. 21	583	{ 160 161 }	18	635
Horseshoe-nails. Machine for punching.....	I. C. Tate.....	226,208	Apr. 6	74	19	17	759
Horseshoe-nails. Making.....	J. M. Laughlin.....	232,895	Oct. 5	120	32	18	758
Horseshoe-nails. Manufacturing.....	J. M. Laughlin.....	235,540	Dec. 14	597	170	18	1389
Horseshoe-pad. Galvanic.....	A. S. Dennison.....	229,103	June 22	1153	315	17	1427
Horseshoe-punching machine.....	G. C. Pyle.....	234,201	Nov. 9	465	126	18	1072
Horseshoe. Supplemental.....	C. G. Hill.....	229,607	July 6	115	31	18	26
Horseshoe. Supplemental.....	C. G. Hill.....	229,608	July 6	115	31	18	26
Horseshoe-swaging die.....	J. R. Williams.....	225,258	Mar. 9	323	93, 94	17	525
Horseshoes. Die for forming toe-clips in.....	J. R. Williams.....	225,256	Mar. 9	320	93	17	525
Horseshoes. Manufacture of.....	J. R. Williams.....	225,259	Mar. 9	323	94	17	525
Hose and other pipe coupling.....	R. Watkinson.....	235,475	Dec. 14	518	150	18	1376
Hose, &c. Applying bands to.....	O. T. Earle.....	225,216	Mar. 9	276	79	17	517
Hose-band.....	O. T. Earle.....	224,586	Feb. 17	719	{ 204 205 }	17	352
Hose-carriage.....	J. B. Aiken.....	226,012	Mar. 30	1242	351	17	709
Hose-carriage.....	J. S. Campbell.....	231,399	Aug. 24	930	262	18	418
Hose-carriage.....	G. B. Leonard.....	232,136	Sept. 14	307	86	18	582
Hose connection and sprinkler. Combined.....	G. R. Burdon.....	224,513	Feb. 17	627	181	17	337
Hose-connections. Clamp for.....	J. Broughton.....	235,931	Dec. 28	1092	302	18	1486
Hose-coupling.....	S. Adam, Jr.....	228,161	June 1	1	1	17	1227
Hose-coupling.....	M. B. Hill.....	228,196	June 1	40	13	17	1233
Hose-coupling.....	J. Kenyon.....	235,777	Dec. 21	878	245	18	1442
Hose-coupling.....	F. M. Lechner.....	227,170	May 4	96	27	17	993
Hose-coupling.....	E. P. Smith and M. Dunn.....	235,580	Dec. 14	646	183	18	1397
Hose. Fire.....	J. E. Gillespie.....	225,698	Mar. 23	858	250	17	635
Hose-jacket.....	C. Crook.....	224,397	Feb. 10	489	141	17	303
Hose-leak stop.....	T. A. Neely.....	234,799	Nov. 23	1224	330	18	1212
Hose. Manufacture of rubber-lined.....	R. Cowen.....	226,038	Mar. 30	1275	359	17	715
Hose-nozzle.....	J. Clifford.....	229,521	July 6	13	3	18	10
Hose-nozzle.....	A. M. Granger.....	229,695	July 6	210	57	18	39
Hose-nozzle. Adjustable.....	A. B. Prouty.....	225,721	Mar. 23	883	258	17	639
Hose-pipe.....	F. Bestwick.....	231,470	Aug. 24	1005	283	18	431
Hose-pipe nozzle.....	F. L. Alderson and T. Loftus.....	225,092	Mar. 2	135	39	17	480
Hose-reel.....	J. Q. Crosby.....	233,990	Nov. 2	196	51	18	1019
Hose-reel.....	B. F. Stoner.....	225,081	Mar. 2	125	36	17	478
Hot-air and steam engine.....	C. A. Marvder.....	233,268	Oct. 12	576	{ 159 160 }	18	841
Hot-air furnace.....	O. Bryan.....	234,232	Nov. 9	500	138	18	1078
Hot-air furnace.....	B. W. Felton.....	228,336	June 1	204	57	17	1260
Hot-air furnace.....	A. L. Goodenow and W. J. Owens.....	231,559	Aug. 24	1107	{ 310 311 }	18	445
Hot-air furnace.....	L. Gould.....	235,945	Dec. 28	1106	306	18	1488
Hot-air furnace.....	O. C. Stafford.....	224,488	Feb. 10	588	{ 169 170 }	17	320
Hot-air register.....	G. W. Bucher.....	234,369	Nov. 9	655	179	18	1104
Hot-air register.....	E. A. Tuttle.....	225,083	Mar. 2	127	36	17	478
Hot-air register.....	E. A. Tuttle.....	225,084	Mar. 2	128	37	17	478

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Hot-air register .....	S. Tuttle, Jr. ....	225,085	Mar. 2	129	37	17	479
House: See Dwelling-house. Portable house. Ice-house.							
House ventilator and register. Combined .....	I. Bales .....	232,166	Sept. 14	346	97	18	589
Houses. Apparatus for moving .....	J. M. Apfeld .....	223,266	Jan. 6	71	18	17	14
Hub .....	C. H. Guard .....	235,630	Dec. 21	710	201	18	1414
Hub-attaching device .....	W. Baker .....	229,353	June 29	1447	398	17	1476
Hub-attaching device .....	S. A. Fuller, Jr. ....	225,819	Mar. 23	1000	287	17	657
Hub-attaching device .....	Z. Huggins .....	225,836	Mar. 23	1015	292	17	660
Hub band. Vehicle .....	G. W. Miller .....	228,097	May 25	1185	337	17	1201
Hub-boring machine .....	H. W. Ransom .....	232,146	Sept. 14	316	89	18	584
Hub. Carriage .....	S. T. F. Sterick .....	226,888	Apr. 27	890	247	17	926
Hub-lock .....	T. H. Outerbridge .....	234,801	Nov. 23	1297	330	18	1212
Hub-trimmer .....	G. N. Stearns .....	224,308	Feb. 10	390	110	17	287
Hub-trimming machine .....	E. C. Clark .....	229,096	June 22	1146	313	17	1426
Hub. Vehicle .....	J. P. Chambers .....	226,277	Apr. 6	145	41	17	772
Hub. Vehicle .....	A. B. McDonald .....	227,031	Apr. 27	1061	294	17	954
Hub. Vehicle-wheel .....	L. S. Edleblute .....	226,990	Apr. 27	1012	281	17	945
Hub. Vehicle-wheel .....	A. Gandy and J. R. Shugert .....	234,020	Nov. 2	243	66	18	1026
Hub. Vehicle-wheel .....	D. Kelle .....	233,776	Oct. 26	1212	336	18	964
Hub. Vehicle-wheel .....	D. May .....	227,806	May 18	831	235	17	1133
Hub. Vehicle-wheel .....	S. Mitchell .....	232,837	Oct. 5	53	15	18	747
Hub. Vehicle-wheel .....	A. A. Philbrick .....	226,783	Apr. 20	745	208	17	892
Hub. Vehicle-wheel .....	L. Rossiter .....	228,940	June 15	959	260	17	1390
Hub. Vehicle-wheel .....	G. Tozer .....	225,498	Mar. 16	615	178	17	582
Hub. Wheel .....	E. N. Oualline .....	235,450	Dec. 14	484	137	18	1370
Hub. Wheel .....	G. J. Overshiner .....	235,007	Nov. 30	1483	399	18	1262
Huller: See Seed-huller.							
Hydrant .....	P. Connolly .....	223,278	Jan. 6	84	21	17	17
Hydrant .....	J. Flanagan .....	230,765	Aug. 3	193	56	18	278
Hydrant .....	S. A. Jenks .....	223,808	Jan. 27	737	198	17	157
Hydrant .....	J. P. Kenyon .....	225,934	Mar. 30	1141	324	17	694
Hydrant .....	E. Knichling .....	232,646	Sept. 28	926	255	18	700
Hydrant .....	D. F. Luse .....	235,790	Dec. 21	892	249	18	1445
Hydrant .....	T. Ragan .....	229,182	June 22	1234	339	17	1439
Hydrant .....	J. Ward .....	224,061	Feb. 3	105	31	17	221
Hydrant .....	E. M. Zerbe .....	229,933	July 13	495	138	18	90
Hydrant and street-washer. Combined .....	J. H. Kennedy .....	228,764	June 15	755	207	17	1362
Hydraulic elevator .....	W. M. Bailey .....	223,464	Jan. 13	316	84	17	69
Hydraulic elevator .....	S. H. Bevis, E. P. Barker, and W. H. Phillips .....	223,272	Jan. 6	76	19	17	15
Hydraulic elevator .....	D. P. Davis .....	229,591	July 6	98	26	18	23
Hydraulic elevator .....	W. E. Hale .....	224,901	Feb. 24	1097	314	17	429
Hydraulic elevator .....	J. R. McPherson .....	225,294	Mar. 9	379	111	17	532
Hydraulic elevator .....	O. E. Merrill .....	235,693	Dec. 21	784	221	18	1427
Hydraulic elevator .....	J. W. See .....	233,286	Oct. 12	599	165	18	845
Hydraulic engine .....	J. R. Cole .....	226,598	Apr. 20	546	153	17	860
Hydraulic engine .....	J. H. Kane .....	225,614	Mar. 16	748	221	17	607
Hydraulic engine .....	P. S. Kcelo .....	235,254	Dec. 7	229	62	18	1319
Hydraulic engine .....	J. Morton .....	223,530	Jan. 13	397	105	17	82
Hydraulic engine .....	I. C. Smith .....	232,656	Sept. 28	939	258	18	701
Hydraulic joint .....	E. D. Meier .....	228,209	June 1	53	17	17	1236
Hydraulic machines. Apparatus for communicating fluid-pressure to work movable .....	C. A. Parsons and W. Cross .....	235,565	Dec. 14	628	179	18	1394
Hydraulic motor .....	W. F. Class and J. C. Briegleb .....	223,707	Jan. 20	607	{ 162 163 }	{ 17 17 }	{ 125 125 }
Hydraulic motor .....	F. W. Gordon .....	229,882	July 13	440	121	18	82
Hydraulic motor .....	J. F. Montross .....	229,736	July 6	259	73	18	46
Hydraulic motor .....	J. A. Myers .....	223,943	Jan. 27	902	240	17	183
Hydraulic motor .....	W. H. Russell .....	233,436	Oct. 19	808	223	18	886
Hydraulic motor .....	J. Thomas .....	226,133	Mar. 30	1380	389	17	731
Hydraulic multiplier .....	E. D. Meier .....	228,771	June 15	763	209	17	1363
Hydraulic pipe .....	D. G. Phipps .....	227,830	May 18	856	242	17	1138
Hydraulic press .....	J. Watson .....	223,785	Jan. 20	691	{ 186 187 }	{ 17 17 }	{ 139 139 }
Hydraulic press .....	G. Webb .....	223,568	Jan. 13	444	120	17	90
Hydraulic press attachment .....	J. W. Jones .....	224,696	Feb. 17	837	238	17	372
Hydrocarbon-burner .....	H. A. Bradley .....	233,397	Oct. 19	762	209	18	879
Hydrocarbon-burner .....	F. W. Carter .....	235,621	Dec. 21	701	199	18	1413
Hydrocarbon-burner .....	J. W. Culmer .....	233,212	Oct. 12	508	{ 141 142 }	{ 18 18 }	{ 829 829 }
Hydrocarbon-burner .....	D. M. Graham .....	234,468	Nov. 16	798	214	18	1136
Hydrocarbon-burner .....	J. S. Hall .....	234,282	Nov. 9	560	153	18	1088
Hydrocarbon burner for steam-boilers, &c. Liquid .....	W. H. Weeks .....	233,305	Oct. 12	626	173	18	850
Hydrocarbon-burning apparatus .....	H. H. Eames .....	224,886	Feb. 24	1078	309	17	426
Hydrocarbon-furnace .....	W. D. Dickey .....	234,395	Nov. 16	710	192	18	1121
Hydrocarbon-furnace .....	B. F. Sherman .....	229,762	July 6	293	82	18	51
Hydrocarbon-furnace .....	B. Sloper .....	236,098	Dec. 28	1285	353	18	1517
Hydrogen. Producing .....	E. J. Jerzmanowski .....	233,861	Nov. 2	42	11	18	994
Hydrogen sulphide. Manufacture of .....	W. E. A. Hartmann .....	224,426	Feb. 10	520	149	17	308
Hydropneumatic apparatus .....	T. A. Martin .....	225,293	Mar. 9	378	{ 110 111 }	{ 17 17 }	{ 532 532 }
Hydropneumatic elevator .....	G. Johnson .....	234,874	Nov. 30	1319	355	18	1234
Hydrostatic press .....	J. H. McGowan .....	226,335	Apr. 6	213	62	17	785
Hydrostatic press .....	J. H. McGowan .....	230,429	July 27	1122	315	18	205
Ice. Apparatus for the manufacture of .....	A. J. Zilker .....	225,037	Mar. 2	71	20	17	468
Ice. Apparatus for the manufacture of .....	A. J. Zilker .....	230,102	July 13	679	191	18	120
Ice-bunker .....	J. W. Smith .....	223,550	Jan. 13	418	112	17	86
Ice-cream beater .....	J. McAnespey .....	229,726	July 6	248	69	18	45
Ice-cream freezer .....	J. A. Borthwick .....	230,856	Aug. 10	315	92	18	306
Ice-cream freezer .....	N. Kidney .....	236,040	Dec. 28	1219	336	18	1506
Ice-cream freezer .....	C. W. Packer .....	223,753	Jan. 20	654	176	17	133

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Ice-cream freezer	J. E. Patterson and W. E. Hayes	225,487	Mar. 16	603	175	17	580
Ice-cream freezer	D. J. Rogers	227,058	Apr. 27	1098	303	17	959
Ice-cream freezer	T. Scantlin	223,765	Jan. 20	668	180	17	136
Ice-cream freezer	F. E. Whitney and C. W. Killam	227,665	May 18	667	190	17	1108
Ice-cream freezer	A. C. Winn and G. L. Winship	225,676	Mar. 16	815	238 230	17	618
Ice-creeper	R. F. Preusser	228,114	May 25	1200	342	17	1204
Ice-cutting machine	E. S. Field	234,397	Nov. 16	714	193	18	1122
Ice-elevator	S. V. Cook	235,128	Dec. 7	77	24	18	1294
Ice-elevator	G. W. Goodell	231,709	Aug. 31	1286	362	18	461
Ice-grooving plow	H. Ware	231,201	Aug. 17	715	200	18	376
Ice-house	R. Bullymore	229,951	July 13	515	142	18	94
Ice-house	J. Lederle and L. Oberlein	232,830	Oct. 5	44	12	18	745
Ice-house	J. G. Müller	235,455	Dec. 14	613	175	18	1392
Ice-machine	O. Kropff	235,950	Dec. 29	1114	307	18	1490
Ice-machine	F. Littmann	234,792	Nov. 23	1211	327	18	1210
Ice-machines. Ammonia-boiler for	O. Kropff	235,441	Dec. 14	473	134	18	1368
Ice-machines, &c. Production of cold in	C. M. T. Du Motay and A. I. Rossi	224,246	Feb. 3	307	.....	17	254
Ice-making apparatus	C. C. Palmer	227,703	May 18	714	202	17	1116
Ice-making apparatus	T. L. Rankin	235,814	Dec. 21	920	257	18	1450
Ice-making apparatus. Compressor for	A. T. Ballantine	229,940	July 13	503	139	18	91
Ice-making apparatus. Condenser for	A. T. Ballantine	229,942	July 13	505	140	18	92
Ice-making apparatus. Congealer for	A. T. Ballantine	229,941	July 13	504	140	18	92
Ice-making apparatus. Water-tank for	T. L. Rankin	235,813	Dec. 21	919	256	18	1450
Ice-pick	C. S. Watson	225,670	Mar. 16	809	237	17	617
Ice-planer	A. Rich and C. Rundlett	230,659	Aug. 3	79	22	18	259
Ice-plow	I. Boone	225,791	Mar. 23	967	279	17	652
Ice. Process of and apparatus for making	J. W. Miller	230,318	July 20	950	270	18	170
Ice. Production of cold for manufacturing	C. M. T. Du Motay	228,488	June 8	395	.....	17	1239
Inclosed can	H. Sangster	232,905	Oct. 5	131	35	18	760
Incrustation-preventive	F. Henderson	231,909	Sept. 7	32	.....	18	530
Incrustation-preventive	J. B. Sowash and G. V. Wright	230,903	Aug. 10	369	.....	18	314
Incubator	H. W. Axford	232,325	Sept. 21	547	151	18	629
Incubator	J. Dennis, Jr.	230,247	July 20	877	249	18	159
Incubator	C. L. and H. S. La Barge	235,787	Dec. 21	889	248	18	1444
Incubator	E. S. Renwick	224,224	Feb. 3	286	83	17	251
Incubator	H. B. Tatham, Jr.	230,086	July 13	659	184	18	116
Incubators. Heat-regulating device for	H. B. Tatham, Jr.	226,568	Apr. 13	490	138	17	839
Index-tab	R. H. Welch	231,202	Aug. 17	715	201	18	376
Indexing books. Spring-clip for	C. L. Norton	231,349	Aug. 17	871	245	18	401
Indicating device	J. Rothenbucher	231,103	Aug. 10	584	166	18	349
Indicator:							
See Cotton-opener feed-	Low-water indicator.						
indicator.	Oven-indicator.						
Electrical indicator.	Piano and organ indicator.						
Electrical visual in-	Railway-train indicator.						
dicator.	Shoe-box indicator.						
Elevator-indicator.	Speed-indicator.						
Fare-indicator.	Station-indicator.						
Gas-burner indica-	Station and cargo indica-						
tor.	tor.						
Letter-box indicator.	Steam-boiler indicator.						
Indicator.	T. W. Blades	226,269	Apr. 6	136	38	17	770
Indicator.	C. F. A. Bultmann	235,411	Dec. 14	432	122	18	1361
Indicator-lock	H. L. Russell	223,955	Jan. 27	912	243 244	17	185
Indicator-lock	H. L. Russell	232,069	Sept. 7	228	63, 64	18	561
Indicator-lock	H. L. Russell	232,070	Sept. 7	231	64	18	562
Indigo blue. Manufacture of artificial	A. Baeyer	225,300	June 1	169	.....	17	1254
Indigo. Manufacture of artificial	A. Baeyer	227,470	May 11	447	.....	17	1062
Indigo. Manufacture of artificial	A. Baeyer	233,458	Oct. 19	836	.....	18	891
Indigo. Manufacture of artificial	A. Baeyer	235,193	Dec. 7	157	.....	18	1307
Indigo. Producing artificial	A. Baeyer	233,459	Oct. 19	837	.....	18	891
Indigo. Production of artificial	A. Baeyer	233,460	Oct. 19	838	.....	18	891
Induction-coil	F. A. Klemm	227,546	May 11	525	152	17	1076
Infusions. Apparatus for making	D. P. Heap	226,611	Apr. 20	562	157	17	862
Ingot-mold	G. Webb	223,566	Jan. 13	440	119	17	90
Ingot-molds. Preparation for coating	A. L. Simondi	226,933	Apr. 27	944	.....	17	935
Ingots, &c. Apparatus for forming molten metal	G. Webb	223,561	Jan. 13	430	114 115	17	88
into					116		
Ingots, &c. Apparatus for forming molten metal	G. Webb	223,562	Jan. 13	432	117	17	89
into					117		
Ingots, &c. Apparatus for forming molten metal	G. Webb	223,563	Jan. 13	435	118	17	89
into					118		
Inhaler. Gas	H. R. Hurd	234,479	Nov. 16	813	218	18	1139
Inhaler. Nasal	J. H. Yates	223,793	Jan. 20	700	189	17	141
Inhaling pad. Vapor-	C. S. Thompson	233,954	Nov. 2	147	40	18	1011
Injector	J. R. Eberman	225,749	Mar. 23	918	266 267	17	644
Injector	E. Wohlers	234,157	Nov. 9	405	110	18	1061
Injector	E. Wohlers	234,158	Nov. 9	406	110	18	1061
Injector and condenser	G. Mazza	233,532	Oct. 19	916	252	18	904
Injector-engine	K. W. Jurisch, J. H. Lewis, W. R. Proell, and C. J. Scharowsky.	233,354	Oct. 19	709	194	18	870
Injector. Feed-water	J. Jenks	233,418	Oct. 19	790	218	18	883
Injector for feeding boilers	J. S. Bancroft	224,762	Feb. 24	933	267	17	403
Injector for feeding boilers	W. Sellers and J. S. Bancroft	224,798	Feb. 24	986	279	17	411
Ink-fountain	I. Collat	232,335	Sept. 21	556	154	18	631
Ink-fountain	S. P. Libbey and A. L. Parcell	230,028	July 13	601	167	18	107
Ink. Manufacture of printing-	J. Kircher	223,363	Jan. 6	177	.....	17	32
Ink. Printing-	M. Connelly	235,670	Dec. 21	754	.....	18	1422
Ink-well	J. C. Latsbaugh	229,260	June 29	1322	364	17	1460
Inking apparatus	S. G. Ames	223,832	Jan. 27	767	205	17	162
Inking-pad	G. H. Knight	230,424	July 27	1116	313	18	204

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Inking-roller.....	C. P. Stevens.....	230,444	July 27	1144	321	18	209
Inkstand.....	J. Bauman.....	226,155	Apr. 6	8	2	17	748
Inkstand.....	H. Hofmann.....	234,128	Nov. 9	373	103	18	1056
Inkstand.....	W. A. Hull.....	226,317	Apr. 6	192	56	17	781
Inkstand.....	G. W. Pagett.....	232,292	Sept. 14	497	139	18	615
Inkstand.....	R. L. Webb.....	230,374	July 20	1017	288	18	182
Inkstand.....	J. H. Wilcox.....	224,261	Feb. 3	323	93	17	257
Inkstand. Calendar.....	J. R. King.....	235,778	Dec. 21	879	245	18	1443
Insect-destroying apparatus.....	W. H. Anderson.....	229,230	June 29	1288	353	17	1455
Insect-destroying apparatus.....	L. T. Jones.....	229,317	June 29	1398	383	17	1469
Insect-guard for windows.....	G. B. Pullinger.....	235,810	Dec. 21	917	256	18	1450
Insect-screen.....	G. B. Pullinger.....	235,811	Dec. 21	918	256	18	1450
Insect-screen.....	G. B. Pullinger.....	235,812	Dec. 21	918	256	18	1450
Insect-trap.....	S. S. Gible.....	234,976	Nov. 30	1447	389	18	1256
Insect-trap.....	A. N. Lovelace.....	224,196	Feb. 3	257	74	17	246
Insects. Device for protecting tables, &c., from crawling.....	J. J. and K. M. Strong.....	233,574	Oct. 19	967	267	18	913
Insects. Wire-cloth fan for the destruction of.....	M. K. Taylor.....	227,706	May 18	717	203	17	1116
Insecticide compound.....	J. E. Gibson.....	225,697	Mar. 23	858	.....	17	635
Insecticide-pastille.....	J. J. Detwiller.....	232,695	Sept. 28	985	.....	18	709
Instep-holder.....	G. McKay and H. P. Fairfield.....	234,488	Nov. 16	823	220	18	1140
Insulated crestring.....	J. C. Chambers.....	224,504	Feb. 10	605	175	17	322
Insulated electric conductor.....	A. F. Moore.....	229,735	July 6	259	72	18	46
Insulating and protecting telegraphic conductors.....	M. M. and R. P. Mauly.....	227,371	May 11	335	98, 99	17	1043
Insulating compound.....	W. W. Jacques.....	231,583	Aug. 24	1134	317	18	450
Insulating compound.....	A. A. Knudson and F. L. Kane.....	230,878	Aug. 10	339	98	18	310
Insulating compound for telegraph-wires.....	W. W. Jacques.....	227,168	May 4	94	26	17	993
Insulating compound for telegraph-wires.....	J. Van Winkle and F. Donnelly.....	228,005	May 25	1089	309	17	1185
Insulating steam-conducting pipes.....	J. Brosius.....	223,314	Jan. 6	127	32	17	23
Insulating telegraph-wires.....	A. K. Eaton.....	225,811	Mar. 23	992	285	17	656
Insulating telegraph-wires, coating metals, covering roofs, and for other purposes. Composition for.....	E. Everhart.....	227,352	May 11	315	.....	17	1041
Insulating telegraph-wires. Machine for.....	E. E. Berthoud and A. F. Borel.....	233,970	Nov. 2	174	44	18	1015
Insulator. Lightning-rod.....	C. H. Lilly.....	230,290	July 20	921	262	18	166
Insulator. Telegraph.....	C. Bignon.....	234,523	Nov. 16	861	230	18	1147
Insulator. Telegraphic and telephonic.....	W. F. Jobbins.....	228,077	May 25	1163	331	17	1198
Interlocking eyes. Machine for forming.....	A. Barnes.....	230,604	Aug. 3	7	2	18	248
Interlocking switch and signal apparatus.....	A. G. Cummings.....	226,499	Apr. 13	408	{ 116 117 118 119 }	17	827
Intestines. Machine for cleaning.....	F. E. Davis.....	230,927	Aug. 10	389	{ 112 113 }	18	318
Iron:							
See Box smoothing-iron. Toasting-iron.							
Carriage-seat iron. Waffle-iron.							
Curling-iron. Wagon-body corner-iron.							
Flat-iron. Wagon-body facing-iron.							
Fluting-iron. Wagon corner-iron.							
Sad-iron. Wagon-seat corner-iron.							
Soldering-iron.							
Iron and steel. Manufacture of.....	J. A. Jones.....	225,932	Mar. 30	1138	324	17	693
Iron and steel. Manufacture of.....	A. Krupp.....	234,789	Nov. 23	1207	.....	18	1209
Iron and steel. Manufacture of.....	J. Reese.....	223,758	Jan. 20	660	.....	17	135
Iron gate.....	J. Young.....	235,113	Dec. 7	59	18	18	1290
Iron in the puddling process. Dephosphorizing.....	W. A. O. Wuth.....	226,143	Mar. 30	1389	.....	17	733
Iron. Manufacture of.....	L. D. Chapin.....	223,481	Jan. 13	338	90, 91	17	73
Iron. Manufacture of.....	R. H. Hamilton and W. Griffith.....	226,400	Apr. 13	288	.....	17	808
Iron. Manufacture of.....	R. H. Hamilton and W. Griffith.....	231,563	Aug. 24	1111	.....	18	446
Iron-melting furnace.....	B. F. Stockford.....	230,356	July 20	999	283	18	179
Iron or other metals with tin, &c. Machine for coating sheet.....	J. F. Duffy.....	229,527	July 6	23	5, 6	18	11
Iron-skelping machine.....	J. Hooven.....	225,835	Mar. 23	1013	291	17	660
Iron surfaces. Coating.....	J. Kintz.....	227,268	May 4	207	.....	17	1012
Iron. Tool for cutting plate.....	W. T. Bennett.....	232,668	Sept. 28	957	262	18	704
Iron. Uniting wrought and cast.....	M. Burns.....	231,532	Aug. 24	1075	302	18	441
Iron-upsetting machine.....	J. Gelvin.....	233,747	Oct. 26	1184	329	18	959
Iron with oxide. Coating.....	G. and A. S. Bower.....	234,524	Nov. 16	862	.....	18	1147
Iron with zinc and alloys of zinc. Coating.....	J. B. Jones.....	234,481	Nov. 16	815	.....	18	1139
Ironing-board.....	J. W. Dewey.....	230,249	July 20	880	250	18	159
Ironing-board.....	G. D. File.....	231,298	Aug. 17	819	229	18	393
Ironing-board.....	G. W. King.....	227,363	May 11	327	96	17	1042
Ironing-board.....	G. H. Pearol.....	226,543	Apr. 13	465	131	17	835
Ironing-board.....	H. L. Rowell.....	226,248	Apr. 6	114	31	17	766
Ironing-board.....	E. W. Terry.....	223,615	Jan. 13	495	133	17	98
Ironing-board clamp.....	E. W. Warren.....	225,187	Mar. 2	230	65	17	495
Ironing-board. Skirt.....	M. H. Baldwin.....	235,403	Dec. 14	423	119	18	1360
Ironing-machine.....	J. A. Bowden.....	233,064	Oct. 12	333	92	18	799
Ironing-machine.....	J. K. O'Neil.....	230,961	Aug. 10	425	123	18	323
Ironing-machine.....	J. K. O'Neil.....	233,007	Oct. 5	251	69	18	779
Ironing-machine.....	J. S. Rubio.....	229,758	July 6	285	80	18	51
Ironing-machine.....	H. J. Skinner.....	233,706	Oct. 26	1136	317	18	951
Ironing-machine.....	M. Steinbock.....	225,176	Mar. 2	220	62	17	494
Ironing-machine.....	J. Vandercar.....	234,631	Nov. 16	1006	268	18	1171
Ironing-machines. Clothes-supporting apron for.....	H. E. Smith.....	228,565	June 8	490	131	17	1313
Ironing-machines. Clothes-supporting apron for.....	H. E. Smith.....	230,900	Aug. 10	365	106	18	314
Ironing-table.....	S. S. Case.....	224,995	Mar. 2	14	5	17	459
Ironing-table.....	G. W. De Mott.....	225,352	Mar. 9	445	130	17	544
Ironing-table.....	W. G. Lindsay.....	234,791	Nov. 23	1211	327	18	1210
Ironing-table.....	C. F. W. Seidel.....	225,648	Mar. 16	783	230	17	613
Ironing-table.....	H. L. St. Clair.....	223,404	Jan. 6	219	58	17	40
Ironing-table.....	S. Wells.....	226,214	Apr. 6	78	20	17	759
Ironing-table. Folding.....	J. M. Shoaf.....	227,659	May 18	662	188	17	1108
Ironing-table. Folding.....	A. Zwiebel.....	232,100	Sept. 7	263	73	18	567
Irrigating purposes. Device for storing water for.....	A. F. Jennings.....	229,136	June 22	1191	326	17	1433



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Ivory, horn, &c. Factitious material to imitate.....	J. W. Hyatt, C. S. Lockwood, and J. H. Stevens.	236,034	Dec. 28	1211	.....	18	1505
Jack:							
See Boot-jack.	Lifting-jack.						
Carriage-jack.	Shoemaker's jack.						
Hoisting-jack.	Thill-coupling jack.						
Lasting-jack.	Wagon-jack.						
Jack.....	G. Wollet.....	231,135	Aug. 10	619	175	18	354
Jacket or envelope for supporting various parts of the human frame. Stiffened.....	W. H. Johnstone.....	224,784	Feb. 24	969	275	17	408
Jacquard machine.....	J. Miesch.....	225,852	Mar. 23	1029	296	17	662
Jail or prison.....	G. H. Maetzel.....	229,540	July 6	41	11	18	14
Jar:							
See Fruit-jar.	Milk-jar.						
Hermetically-sealed jar.	Slop-jar.						
Jar.....	N. Rogers.....	228,938	June 15	955	{ 259 } 260	17	1390
Jars. Hermetic sealing of.....	J. W. Brady.....	232,170	Sept. 14	350	98	18	589
Jars. Machine for corrugating metal covers for sealing.....	L. Lenglet.....	231,917	Sept. 7	45	11	18	532
Jetties. Construction of.....	S. E. Hughes.....	227,531	May 11	510	{ 146 } 147	17	1073
Jetty. Portable sectional.....	J. Grant.....	225,592	Mar. 16	720	212	17	602
Jetty-shutter.....	J. U. Mueller.....	226,772	Apr. 20	735	205	17	890
Jewel-case.....	W. C. Beattie.....	225,787	Mar. 23	963	{ 277 } 278	17	651
Jewel-case.....	W. F. E. Gurley.....	230,548	July 27	1256	354	18	228
Jewel-stand.....	S. K. Devereux.....	230,756	Aug. 3	183	53	18	276
Jeweler's clamp.....	A. A. Cowing.....	223,711	Jan. 20	612	164	17	126
Jewelers' use. Tool for.....	L. G. Grady.....	234,560	Nov. 16	908	244	18	1154
Jewelry.....	F. E. Gilbert.....	225,820	Mar. 23	1001	287	17	657
Jewelry.....	A. W. Magerhans.....	231,433	Aug. 24	968	273	18	424
Jewelry and fancy articles. Plastic composition of matter for the manufacture of.....	I. B. Abrahams.....	226,583	Apr. 20	531	.....	17	857
Jewelry-charm.....	G. B. Whitney.....	224,260	Feb. 3	322	93	17	257
Jewelry. Imitation of mosaic for.....	F. E. Meyer.....	227,377	May 11	347	101	17	1045
Jewelry manufacture. Device for bending wire for.....	A. M. English.....	224,004	Feb. 3	39	11	17	209
Jewelry. Manufacture of.....	G. L. Vose and A. S. Southwick.....	234,152	Nov. 9	398	108	18	1060
Jewelry-ornament.....	F. Diffany.....	232,949	Oct. 5	166	49	18	769
Jewelry, &c. Ornamentation of.....	L. J. Falize, Jr.....	223,803	Jan. 27	729	197	17	156
Jewelry-ring.....	E. L. Jordan and M. E. Taylor.....	230,637	Aug. 3	50	14	18	255
Joint:							
See Bed-frame-rail joint.	Railway-rail joint.						
Carriage-top joint.	Railway-rail fish joint.						
Dell joint.	Railway-rail splice joint.						
Elbow joint.	Sheet-metal joint.						
Furniture joint.	Sheet-metal-tube joint.						
Hydraulic joint.	Tile joint.						
Pipe joint.	Universal joint.						
Rail joint.	Vehicle joint.						
Railway joint.							
Jointer and colter block.....	E. Allen.....	223,831	Jan. 27	766	205	17	162
Joist-support.....	B. T. Raisor.....	233,696	Oct. 26	1126	314	18	949
Journal and bearing. Car.....	J. H. McLean.....	224,205	Feb. 3	267	77	17	248
Journal-bearing.....	J. P. Celfelt.....	224,391	Feb. 10	483	138	17	302
Journal-bearing.....	R. W. Drev.....	226,907	Apr. 27	910	253	17	930
Journal-bearing.....	D. A. Hopkins.....	235,435	Dec. 14	466	132	18	1367
Journal-bearing for shafts.....	C. C. Klein.....	225,224	Mar. 9	286	82	17	519
Journal-bearings. Composition from mineral wool for.....	G. F. Senter.....	235,909	Dec. 28	1060	.....	18	1481
Journal-box.....	A. Higley.....	227,627	May 18	624	179	17	1102
Journal-box.....	J. V. Merrick.....	232,049	Sept. 7	208	56, 57	18	559
Journal-box. Anti-friction.....	E. D. Draper.....	223,639	Jan. 20	534	143	17	114
Journals in machinery. Device for lubricating.....	F. Crocker, Sr.....	226,840	Apr. 27	827	230	17	916
Jug. Covered.....	I. W. Knowles.....	232,730	Sept. 28	1020	281	18	715
Jugs. Lip and bail attachment for.....	F. E. Oltz.....	235,294	Dec. 7	266	74	18	1325
Keg. Lager-beer.....	J. B. Hayden.....	234,473	Nov. 16	806	216	18	1137
Kegs, &c. Cover for.....	A. J. Robinson.....	225,167	Mar. 2	209	59	17	492
Kettle-handle.....	G. Beeth.....	234,227	Nov. 9	496	136	18	1077
Kettle-handle. Adjustable.....	J. S. S. Tidd and F. O. Clafin.....	230,447	July 27	1146	322	18	209
Kettle. Skeleton.....	B. F. Roberts.....	224,956	Feb. 24	1149	328	17	438
Kettle. Steam-jacket.....	W. N. Barrows.....	233,189	Oct. 12	484	133	18	825
Key:							
See Piano-key.	Watch-key.						
Telegraph-key.							
Key.....	E. Parker.....	234,057	Nov. 2	282	78	18	1033
Key-blanks. Manufacture of.....	P. Mathes.....	225,227	Mar. 9	292	83	17	519
Key-fastener.....	D. D. Barton.....	226,016	Mar. 30	1247	352	17	710
Key-fastener.....	L. Johnson.....	224,919	Feb. 24	1114	318	17	432
Key-hole guard.....	J. H. Browne.....	227,725	May 18	746	210	17	1120
Key-hole guard.....	F. Canis.....	223,836	Jan. 27	770	206	17	163
Key-ring.....	J. S. Birch.....	226,702	Apr. 20	664	185	17	878
Key-ring.....	B. H. Melendy.....	225,626	Mar. 16	761	224	17	609
Kiln:							
See Charcoal-kiln.	Lumber-drying kiln.						
Drying-kiln.	Malt-kiln.						
Lime-kiln.	Terra-cotta kiln.						
Lime and cement kiln.	Tile-kiln.						
.....	Tile and brick kiln.						
Kiln for burning pottery-ware and other articles.....	W. French.....	233,230	Oct. 12	533	148	18	833
King-belt. Vehicle.....	A. J. and J. A. Rehkopf.....	226,197	Apr. 6	60	15	17	756
King-belts. Die for forming.....	W. Pearce.....	234,059	Nov. 2	284	78, 79	18	1033
Kitchen-cabinet.....	N. H. Dolsen.....	235,074	Dec. 7	16	4	18	1283
Kitchen-cabinet.....	S. E. Jordan.....	235,153	Dec. 7	113	32	18	1300

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Kitchen-cabinet.....	I. B. Robbins.....	227,179	May 4	104	30	17	995
Kitchen-table.....	J. Graves, A. W. and W. Partrick..	232,401	Sept. 21	640	176	18	645
Kitchen-table.....	A. K. Hoffmeier.....	229,533	July 6	31	8	18	13
Kitchen-table. Cabinet.....	W. H. Wiester.....	223,828	Jan. 27	763	204	17	161
Kite.....	J. Thompson.....	225,306	Mar. 9	392	114	17	535
Knapsack attachment.....	W. Hoffman.....	227,166	May 4	92	25	17	993
Kneader and flour-sifter. Combined dough.....	I. W. Lincoln.....	226,085	Mar. 30	1323	373	17	722
Kneader. Dough.....	L. Durand.....	228,739	June 15	718	197	17	1357
Knecading-machine.....	J. I. Lednum.....	235,260	Dec. 7	238	65	18	1321
Knife:							
<i>See</i> Cheese-knife. Mower and reaper knife.							
Clasp-knife. Pocket-knife.							
Cloth-cutting knife. Table-knife.							
Currying-knife. Tobacco-leaf cutting-knife.							
Hay-knife. knife.							
Knife.....	O. A. Wilson.....	229,219	June 22	1272	350	17	1444
Knife and fork holder.....	J. R. Johnston.....	228,998	June 22	1044	284	17	1411
Knit fabric.....	R. F. M. Chase.....	226,595	Apr. 20	543	152	17	859
Knit fabric.....	R. F. M. Chase.....	226,586	Apr. 20	545	152	17	859
Knit fabric.....	S. Love.....	229,896	July 13	452	125	18	84
Knit fabrics. Machine for uniting.....	W. Beattie.....	228,802	June 15	807	221	17	1369
Knitting-machine.....	G. Johnstone.....	229,709	July 6	226	62, 63	18	41
Knitting-machine.....	A. March.....	223,292	Jan. 6	104	25 26 27	17	20
Knitting-machine.....	M. Marshall.....	232,834	Oct. 5	50	15	18	746
Knitting-machine.....	I. N. Moore.....	236,062	Dec. 28	1246	344	18	1511
Knitting-machine.....	B. F. Shaw.....	224,046	Feb. 3	82	25	17	217
Knitting-machine.....	O. Twombly.....	229,288	June 29	1358	372 373	17	1464
Knitting-machine burr.....	E. Vermilyea and C. E. Norris.....	229,651	July 6	159	44	18	32
Knitting machine. Circular.....	J. Bradley.....	227,213	May 4	149	43, 44	17	1002
Knitting machine. Circular.....	W. H. Mayo.....	226,091	Mar. 30	1330	375	17	723
Knitting machine. Circular.....	B. F. Shaw.....	228,480	June 8	376	103 104 105 106 107	17	1296
Knitting-machine feed mechanism. Circular.....	J. Byfield.....	231,476	Aug. 24	1012	284 285	18	432
Knitting-machine for manufacturing fabrics for mattresses, &c.....	M. Townsend.....	229,487	June 29	1603	442	17	1497
Knitting-machine needles. Manufacture of.....	E. Jackman and F. Flanders.....	224,542	Feb. 17	659	189	17	342
Knitting-machine needles. Manufacture of latches for.....	E. Jackman and F. Flanders.....	224,541	Feb. 17	658	188	17	342
Knitting-machine ribbing attachment.....	F. Kittell.....	235,882	Dec. 28	1025	283	18	1475
Knitting machine. Straight.....	W. Aiken.....	233,061	Oct. 12	327	91, 92	18	799
Knitting machine. Straight.....	W. Aiken.....	235,332	Dec. 14	340	93	18	1346
Knitting machines. Feed mechanism for circular.....	H. Clarke.....	234,535	Nov. 16	873	232 233	18	1149
Knitting machines. Head for circular.....	J. Heginbothom.....	235,238	Dec. 7	213	58	18	1316
Knitting machines. Mechanism for operating the thread-guides of straight.....	A. A. Dennett and G. H. Holmes.....	230,533	July 27	1238	349	18	225
Knitting-machines. Needle cylinder or bed of.....	S. Cornfield.....	223,710	Jan. 20	611	163	17	126
Knob alarm. Door.....	M. Truby.....	235,592	Dec. 14	659	186	18	1399
Knob attachment.....	W. H. Gonne.....	234,466	Nov. 16	797	214	18	1136
Knob attachment.....	S. Harris.....	231,223	Aug. 17	742	208	18	380
Knob attachment.....	E. Parker.....	224,348	Feb. 10	435	125	17	294
Knob attachment.....	E. Parker.....	226,243	Apr. 6	110	30	17	765
Knob attachment.....	M. Penfield.....	227,992	May 25	1070	304	17	1183
Knob attachment.....	C. A. Pettet.....	233,693	Oct. 26	1123	313	18	949
Knob attachment.....	A. M. Smith.....	226,123	Mar. 30	1368	385	17	729
Knob. Door.....	H. Tucker.....	223,259	Jan. 6	63	16	17	13
Knob. Register.....	G. W. Lewin.....	232,984	Oct. 5	226	61	18	775
Knob-rose.....	J. F. Peacock.....	234,058	Nov. 2	283	78	18	1033
Knob-rose attachment.....	E. Parker.....	226,244	Apr. 6	111	30	17	766
Knobs to spindles. Attaching glass.....	J. Dougherty.....	231,903	Sept. 7	30	7	18	529
Label.....	C. Rowland.....	224,958	Feb. 24	1151	329	17	438
Label.....	J. H. Small.....	231,365	Aug. 17	887	250	18	404
Label.....	J. H. Small.....	231,366	Aug. 17	888	250	18	404
Label. Botanical.....	C. J. Schultz.....	227,658	May 18	661	188	17	1108
Label-holder.....	H. Baker.....	226,474	Apr. 13	379	108	17	822
Label-holder.....	T. B. Bishop.....	225,045	Mar. 2	85	23	17	470
Label-holder.....	J. Henderson.....	228,757	June 15	743	205	17	1361
Label. Tobacco.....	P. J. Sorg.....	232,771	Sept. 28	1071	293	18	723
Labels. Making colored.....	S. Crump.....	227,960	May 25	1032		17	1177
Lace-fastening for gloves, &c.....	A. G. Fay, Jr.....	231,483	Aug. 24	1019	286	18	433
Lace show-box.....	J. Loeb.....	226,088	Mar. 30	1326	373	17	722
Laces, &c. Coverlet for holding and exhibiting.....	E. Ehrlich.....	233,490	Oct. 19	869	240	18	896
Lacing garments. Means for.....	E. H. Smith.....	232,420	Sept. 21	668	184	18	649
Lacing-hook.....	M. Bray.....	228,509	June 8	418	114	17	1302
Lacing-hook.....	H. A. Church.....	227,094	May 4	4	2	17	979
Lacing-hook. Boot and shoe.....	M. Bray.....	228,510	June 8	419	114	17	1302
Lacing-hook. Sheet-metal.....	C. I. Humphreys.....	229,253	June 29	1316	363	17	1459
Lacing-hook stock.....	S. N. Smith.....	232,561	Sept. 21	822	228	18	676
Lacing-staple.....	C. Varlot.....	233,579	Oct. 19	972	268	18	914
Lacing-tips. Stock for metallic.....	W. E. Joslin.....	232,289	Jan. 6	100	24	17	19
Lactometer.....	E. E. Page.....	230,330	July 20	969	275	18	174
Lactometer.....	G. Tanner.....	231,737	Aug. 31	1323	372	18	486
Ladder.....	C. D. Cannon.....	234,389	Nov. 16	706	190	18	1120
Ladder.....	J. C. Moore.....	224,462	Feb. 10	562	161	17	315
Ladder.....	J. L. Sippy.....	227,312	May 4	254	74	17	1015
Ladder and ironing-board. Combined step.....	M. Campbell.....	227,346	May 11	309	90	17	1039
Ladder. Extension.....	S. E. Adams.....	224,374	Feb. 10	466	133	17	299

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Ladder. Extension.	C. P. Rood.	229,472	June 29	1582	437	17	1495
Ladder. Extension step.	H. E. Phelps.	229,552	July 6	55	15	18	16
Ladder. Folding step.	P. L. Sylvester.	235,827	Dec. 21	936	261 262	18	1453
Ladder. Step.	J. Hill.	225,831	Mar. 23	1010	290	17	659
Ladder. Step.	M. N. Lovell.	224,020	Feb. 3	55	17	17	213
Ladder. Step.	M. C. McCollum.	235,165	Dec. 7	127	36	18	1303
Ladder. Step.	C. H. Miller.	230,798	Aug. 3	231	67	18	224
Ladder. Step.	D. C. Smart.	226,935	Apr. 27	947	263	17	935
Ladder. Step.	J. N. Valley.	226,943	Apr. 27	957	265	17	937
Ladder. Telescopic.	F. W. Hofele.	232,968	Oct. 5	207	55 56 57	18	772
Ladders. Adjustable leg for step.	H. Stretcher.	230,208	July 20	823	233	18	151
Lambrequin.	C. J. Shipley.	223,128	May 25	1216	346	17	1206
Lamp.	D. Arndt.	235,926	Dec. 28	1087	300	18	1485
Lamp.	R. Cartwright.	227,731	May 18	750	211	17	1121
Lamp.	G. J. Cook.	224,394	Feb. 10	486	140	17	303
Lamp.	F. G. Farnham.	231,549	Aug. 24	1095	307	18	444
Lamp.	J. H. Ferguson.	231,026	Aug. 10	502	141	18	335
Lamp.	J. G. Greene.	225,366	Mar. 9	460	134	17	546
Lamp.	E. Gough.	229,117	June 22	1169	320	17	1429
Lamp.	C. R. Harrison.	232,961	Oct. 5	199	52	18	770
Lamp.	G. P. Kate and G. H. Chinnoek.	223,923	Jan. 27	880	234	17	180
Lamp.	F. R. Kimball.	224,441	Feb. 10	543	156	17	312
Lamp.	J. Kintz.	224,701	Feb. 17	842	239	17	373
Lamp.	O. Knapp.	225,935	Mar. 30	1142	325	17	694
Lamp.	R. C. Lawton.	224,449	Feb. 10	549	158	17	313
Lamp.	D. R. Lowdon.	226,089	Mar. 30	1327	374	17	722
Lamp.	E. M. Lowden.	230,299	July 20	932	265	18	168
Lamp.	E. M. Lowden.	232,521	Sept. 21	783	216	18	669
Lamp.	S. S. Newton.	223,376	Jan. 6	190	50	17	35
Lamp.	S. S. Newton.	235,642	Dec. 21	723	205	18	1416
Lamp.	J. H. Purdy.	232,206	Sept. 14	396	110	18	597
Lamp.	E. A. Rippingille.	231,730	Aug. 31	1316	370	18	485
Lamp.	C. F. Spencer.	223,254	Jan. 6	57	14	17	12
Lamp.	C. F. Spencer.	231,688	Aug. 31	1262	355	18	477
Lamp.	O. Sweeney.	225,662	Mar. 16	797	233	17	615
Lamp.	C. Stockmann.	227,071	Apr. 27	1115	307	17	961
Lamp.	F. A. Taber.	230,360	July 20	1003	284	18	180
Lamp.	F. A. Taber.	236,108	Dec. 28	1300	357	18	1520
Lamp.	J. Trent.	226,211	Apr. 6	76	19	17	759
Lamp.	L. R. Walker and C. W. W. Ball.	232,318	Sept. 14	528	147	18	620
Lamp.	C. S. West.	231,695	Aug. 31	1270	357	18	479
Lamp. Adjustable bracket and standard.	J. H. White.	235,477	Dec. 14	520	150	18	1376
Lamp and lantern burner.	G. A. Beidler.	227,474	May 11	451	129	17	1063
Lamp and swing-brnsh. Device for supporting a.	M. A. Dees.	225,807	Mar. 23	987	283	17	655
Lamp-body.	J. Kintz.	225,615	Mar. 16	749	221	17	607
Lamp-bracket.	E. A. Parker.	232,412	Sept. 21	654	180	18	647
Lamp-bracket. Safety.	J. Fallows.	230,625	Aug. 3	34	9	18	252
Lamp-burner.	T. Fitzgerald, Jr.	234,762	Nov. 23	1171	316	18	1204
Lamp-burner.	H. W. Hayden.	225,054	Mar. 2	95	26	17	472
Lamp-burner.	K. H. E. Höyby.	225,524	Mar. 16	647	188	17	588
Lamp-burner.	W. F. Letz and J. Lemon.	232,992	Oct. 5	235	65	18	777
Lamp-burner.	O. Merrill.	224,459	Feb. 10	559	161	17	315
Lamp burner and chimney.	H. W. Hayden.	225,929	Mar. 30	1134	323	17	693
Lamp-burner. Compound.	J. Crutchett.	231,013	Aug. 10	484	137	18	332
Lamp burner. Kerosene.	J. Trent.	226,210	Apr. 6	76	19	17	759
Lamp burner. Vapor.	W. F. Kistler.	235,439	Dec. 14	470	133	18	1367
Lamp-burners. Wick-tube for.	D. W. Kissam.	226,176	Apr. 6	35	9	17	752
Lamp-cap.	R. A. Coit.	228,730	June 15	710	195	17	1356
Lamp. Car.	C. P. Howard.	224,434	Feb. 10	532	154	17	310
Lamp. Car.	C. P. Howard.	224,760	Feb. 24	958	273	17	407
Lamp. Car.	G. Scagrove.	228,402	June 1	270	76	17	1270
Lamp. Carriage.	J. A. Roberts.	223,389	Jan. 6	204	54	17	37
Lamp-chimney cleaner.	C. W. Ferguson.	230,260	July 20	892	253	18	161
Lamp-chimney protector.	J. S. Butcher.	230,466	July 27	1167	329	18	213
Lamp-chimneys and similar articles. Apparatus for crimping	A. Harcum.	232,492	Sept. 21	753	208	18	663
Lamp-chimneys. Mechanism for opening the base of.	J. Adams.	232,625	Sept. 28	903	249	18	696
Lamp. Cigar-lighter.	A. Patitz.	232,058	Sept. 7	218	59	18	560
Lamp. Combined stand and bracket.	R. Cartwright.	234,245	Nov. 9	514	141	18	1081
Lamp-cone.	J. S. Goldsmith.	235,867	Dec. 28	1008	279	18	1473
Lamp. Electric.	J. Breckie.	233,399	Oct. 19	763	210	18	879
Lamp. Electric.	T. A. Edison.	223,898	Jan. 27	843	225	17	174
Lamp. Electric.	G. W. Fuller and E. D. Macintosh.	229,246	June 29	1303	360	17	1457
Lamp. Electric.	J. H. Guest.	225,594	Mar. 16	722	213	17	602
Lamp. Electric.	J. H. Guest.	233,236	Oct. 12	541	150	18	835
Lamp. Electric.	J. H. Guest.	233,346	Oct. 19	699	191	18	868
Lamp. Electric.	C. W. Harrison.	234,032	Nov. 2	257	70	18	1028
Lamp. Electric.	J. C. Jamin.	232,610	Sept. 28	887	245	18	693
Lamp. Electric.	J. W. Langley.	235,258	Dec. 7	236	64, 65	18	1320
Lamp. Electric.	W. G. Levison.	227,025	Apr. 27	1052	292	17	952
Lamp. Electric.	A. Man.	227,118	May 4	28	9	17	983
Lamp. Electric.	H. S. Maxim.	230,310	July 20	944	268	18	169
Lamp. Electric.	H. S. Maxim.	230,952	Aug. 10	417	121	18	322
Lamp. Electric.	H. S. Maxim.	234,835	Nov. 23	1267	340 341	18	1220
Lamp. Electric.	R. R. Moffatt.	230,801	Aug. 3	233	68	18	285
Lamp. Electric.	W. Sawyer.	227,386	May 11	354	104	17	1046
Lamp. Electric.	W. Sawyer.	227,387	May 11	356	104	17	1047
Lamp. Electric.	W. Sawyer.	227,388	May 11	357	104	17	1047
Lamp. Electric.	W. Sawyer.	227,389	May 11	357	105	17	1047
Lamp. Electric.	W. Sawyer.	227,390	May 11	358	105	17	1047

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Lamp. Electric	W. Sawyer	228,122	May 25	1209	344	17	1205
Lamp. Electric	W. Sawyer	233,284	Oct. 12	596	164	18	844
Lamp. Electric	W. Sawyer	235,459	Dec. 14	500	144	18	1372
Lamp. Electric	C. W. Siemens	233,289	Oct. 12	602	166	18	845
Lamp. Electric	J. W. Swan	233,445	Oct. 19	519	225 226	18	883
Lamp. Electric	J. W. Swan	234,345	Nov. 9	627	171	18	1100
Lamp. Electric	F. Tommasi	227,596	May 11	586	168	17	1035
Lamp. Electric	E. Weston	225,312	Mar. 9	339	116	17	536
Lamp. Electric	F. Winters, Jr.	223,790	Jan. 20	697	188	17	140
Lamp. Electric	J. J. Wood	233,589	Oct. 19	980	271	18	916
Lamp-extinguisher	J. W. Donovan	233,218	Oct. 12	518	144	18	831
Lamp-extinguisher. Automatic	J. H. Ferriss	227,971	May 25	1046	298	17	1170
Lamp-fixture	N. L. Bradley	235,329	Dec. 7	312	88	18	1333
Lamp-fixture. Extension	J. A. Everts	230,258	July 20	890	253	18	161
Lamp-fixture. Extension	E. A. Parker	230,047	July 13	619	173	18	110
Lamp-fixture. Extension	F. R. Seidensticker	233,879	Nov. 2	59	16	18	997
Lamp for stoves, &c.	F. Ell	227,156	May 4	83	22	17	991
Lamp. Gasoline street.	H. Wellington	234,827	Nov. 23	1258	338	18	1218
Lamp. Glass	D. C. Ripley	230,340	July 20	981	278	18	176
Lamp-globe	G. Chappel	228,247	June 1	103	31	17	1243
Lamp. Hanging	O. F. Eichberg	226,732	Apr. 20	694	193	17	883
Lamp. Hanging	T. D. Hotchkiss	224,538	Feb. 17	655	188	17	341
Lamp. Hanging	J. Kintz	224,443	Feb. 10	545	156	17	312
Lamp. Hanging or suspension	E. L. Bryant	226,708	Apr. 20	670	166	17	879
Lamp. Hydrogen	F. Rhind and J. Farthing	232,848	Oct. 5	63	18	18	749
Lamp-lighting mechanism	J. and J. Hinks	233,855	Nov. 2	36	9	18	993
Lamp. Mill.	P. Wall	228,497	June 8	406	111	17	1300
Lamp. Miner's	J. A. Anton	229,351	June 29	1445	398	17	1475
Lamp. Miner's	J. Voegelé	229,929	July 13	491	136	18	90
Lamp. Miner's	L. Weiho	227,333	May 4	277	81	17	1023
Lamp or lantern	B. Eason	235,674	Dec. 21	758	215	18	1423
Lamp regulator. Electric	J. E. Braunsdorf	227,478	May 11	455	131	17	1063
Lamp regulator. Electric	E. J. Houston and E. Thomson	223,646	Jan. 20	540	145 146	17	115
Lamp regulator. Electric	N. S. Keith	227,264	May 4	203	59	17	1011
Lamp. Reservoir	O. Sweeney	232,778	Sept. 28	1085	297	18	726
Lamp-shade	J. S. Bedcl	228,024	May 25	1104	314	17	1188
Lamp shade and chimney. Combined	G. A. Beidler	233,966	Nov. 2	170	43	18	1014
Lamp shade and reflector	T. P. Forsyth	234,763	Nov. 23	1172	316	18	1204
Lamp-shade holder	A. B. Hutchins	229,825	July 13	376	104	18	72
Lamp-shades. Decoration of	A. E. Smith	230,581	July 27	1290	364	18	234
Lamp-shell. Mechanical	R. Hitchcock	234,916	Nov. 30	1372	369	18	1243
Lamp-stand	H. E. Clinton	233,983	Nov. 2	190	49	18	1018
Lamp. Street	G. P. Ganster	227,760	May 18	781	221	17	1126
Lamp. Street	J. G. Miner	228,265	June 1	132	37	17	1247
Lamp. Student	S. C. Catlin	223,216	Jan. 6	8	2	17	4
Lamp. Student	E. A. Parker	231,353	Aug. 17	874	246	18	402
Lamp-supporting device	A. Roelofs	232,761	Sept. 28	1060	290	18	722
Lamps. Decorating glass	J. W. Haines	225,701	Mar. 23	860	251	17	635
Lamps. Distributing currents to electric	G. Lecoq	231,725	Aug. 31	1309	369	18	485
Lamps. Manufacture of peg	J. Dalzell	224,519	Feb. 17	632	183	17	338
Lamps. Manufacturing electric	T. A. Edison	230,255	July 20	887	252	18	160
Lamps. Removing air from globes of electric	H. S. Maxim	230,954	Aug. 10	419	121	18	322
Lamps with gas. Apparatus for charging electric	T. B. Stillman	227,454	May 11	425	123 124	17	1053
Land-roller	T. Kammerer	232,354	Sept. 21	585	161	18	635
Land-roller	T. B. Patton	223,746	July 6	271	76	18	48
Land-roller and stalk-cutter	S. J. Love	232,283	Sept. 14	490	136	18	614
Lantern	E. J. Brooks	225,794	Mar. 23	971	279 280 309	17	653
Lantern	J. H. Ewing and E. L. Bill	224,888	Feb. 24	1051	310 311	17	426
Lantern	E. P. Follett	232,810	Oct. 5	16	5	18	741
Lantern	C. H. Fry, Jr.	234,767	Nov. 23	1176	317	18	1204
Lantern	C. T. Ham	230,873	Aug. 10	333	97	18	309
Lantern	R. Hammill	223,908	Jan. 27	859	293	17	176
Lantern	L. Henklo	225,983	Mar. 30	1205	342	17	704
Lantern	L. Henklo	226,852	Apr. 27	844	234	17	919
Lantern	T. Langston	224,703	Feb. 17	843	240	17	373
Lantern	C. F. Moeller	233,107	Oct. 12	389	107	18	808
Lantern	J. W. Orphy	229,330	June 29	1416	353	17	1472
Lantern	J. W. Orphy	229,452	June 29	1554	428	17	1491
Lantern	R. B. Perkins	232,295	Sept. 14	500	139	18	615
Lantern	R. B. Perkins	234,926	Nov. 30	1381	372	18	1245
Lantern	E. B. Requa	224,225	Feb. 3	287	83	17	251
Lantern	W. S. Rogers	233,024	Oct. 5	271	75	18	783
Lantern	E. R. Tutt	230,839	Aug. 3	284	81	18	294
Lantern-burner	G. A. Beidler	225,788	Mar. 23	964	278	17	652
Lantern. Carriage	H. Nahe	231,727	Aug. 31	1313	369	18	485
Lantern. Dark	P. B. Bicknell	231,987	Sept. 7	140	36	18	546
Lantern. Hand signal	W. Armstrong	224,065	Feb. 3	113	33	17	222
Lantern-hanger	E. Luffkin	234,045	Nov. 2	271	74	18	1031
Lantern-holder	W. F. Brainard	235,617	Dec. 21	696	198	18	1412
Lantern-holder	J. Churchill	235,994	Dec. 28	1163	323	18	1498
Lantern-holder	W. B. Coulter	235,129	Dec. 7	78	24, 25	18	1294
Lantern-holder	F. G. Stephenson	234,500	Nov. 16	894	223	18	1142
Lantern-holder	L. W. Turner	235,181	Dec. 7	143	41	18	1306
Lantern. Railway signal	D. W. F. De Grange	231,702	Aug. 31	1278	359	18	480
Lantern. Signal	J. F. Batchelor	230,522	July 27	1225	345	18	222
Lantern. Signal	R. W. Lewis	225,397	Mar. 9	496	144	17	552
Lantern. Signal	W. S. Rogers	229,054	June 22	1100	209	17	1419
Lantern. Signal	G. Skinner	223,548	Jan. 13	415	111	17	86

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Lantern. Signal.....	G. E. Smith and R. M. Murdock .....	225,883	Mar. 23	1066	304	17	668
Lantern. Tubular.....	H. C. Alexander.....	233,390	Oct. 19	753	206	18	877
Lantern. Tubular.....	W. H. Fulton.....	230,391	July 27	1077	303	18	198
Lanterns and flags. Holder for signal.....	F. W. Coolbaugh.....	232,461	Sept. 21	716	198	18	657
Lard-cooler.....	G. A. Stanley.....	228,691	June 8	626	{ 169 170 }	{ 17 17 }	{ 1333 1230 }
Last.....	W. J. Crowley.....	228,178	June 1	20	6	17	1230
Last.....	W. E. Miller.....	228,664	June 8	602	161	17	1330
Last.....	L. W. Shorey.....	224,234	Feb. 3	295	85	17	252
Last.....	G. M. Wells.....	223,263	Jan. 6	68	17	17	14
Last-block fastener.....	U. R. Harvey.....	227,429	May 11	400	116	17	1053
Lasts. Metallic socket-bushing for.....	W. Miller.....	235,000	Nov. 30	1474	396	18	1261
Lasting. Device for preparing uppers for.....	M. Brock and E. Woodward.....	234,231	Nov. 9	499	137	18	1078
Lasting-jack.....	C. E. Clark.....	234,960	Nov. 30	1427	384	18	1252
Lasting-jack.....	G. W. Hutchins.....	232,506	Sept. 21	769	212	18	666
Lasting-jack.....	G. W. Willey.....	233,177	Oct. 12	470	129	18	822
Lasting-machine.....	H. P. Fairfield.....	234,912	Nov. 30	1368	368	18	1242
Lasting-machine.....	G. Hawkes.....	232,964	Oct. 5	203	54	18	771
Lasting-machine.....	G. McKay and H. P. Fairfield.....	231,076	Aug. 10	549	{ 155 156 }	{ 18 18 }	{ 343 386 }
Latch.....	C. E. Billings.....	231,260	Aug. 17	779	218	18	386
Latch.....	S. Buschlen and L. Sees.....	230,861	Aug. 10	319	94	18	307
Latch.....	G. L. Crandal.....	228,323	June 1	190	53	17	1258
Latch.....	P. Forg.....	234,866	Nov. 30	1310	353	18	1233
Latch.....	W. F. Hall.....	231,561	Aug. 24	1109	311	18	446
Latch.....	T. W. Kimbell.....	232,509	Sept. 21	772	213	18	666
Latch.....	T. S. Livermore.....	225,707	Mar. 23	867	254	17	636
Latch.....	T. F. McGrath.....	233,867	Nov. 2	48	13	18	995
Latch.....	A. B. Prouty.....	224,040	Feb. 3	75	23	17	216
Latch.....	C. H. Smith.....	225,728	Mar. 23	889	259	17	640
Latch.....	W. E. Sparks.....	228,569	June 8	494	132	17	1313
Latch.....	W. E. Sparks.....	231,504	Aug. 24	1042	292	18	436
Latch.....	H. F. Spencer and H. C. Eggleston.....	233,711	Oct. 26	1146	319	18	952
Latch.....	L. Wallace.....	231,872	Aug. 31	1491	418	18	512
Latch.....	S. H. Wheeler.....	229,347	June 29	1440	397	17	1475
Latch. Automatic gate.....	A. F. Webb and J. L. Duncan.....	226,577	Apr. 13	498	140	17	840
Latch. Door.....	P. Mathes.....	232,529	Sept. 21	792	220	18	670
Latch. Gate.....	S. B. Elzey.....	225,580	Mar. 16	707	208	17	600
Latch. Gate.....	A. A. Treat.....	234,092	Nov. 2	320	88	18	1039
Latch-lever.....	G. H. Sargent.....	227,587	May 11	572	164	17	1083
Latch. Locking.....	G. J. Dickson.....	235,137	Dec. 7	89	28	18	1297
Latch. Reversible.....	C. S. Jennings.....	231,171	Aug. 17	676	{ 190 191 }	{ 18 18 }	{ 370 1105 }
Latch. Reversible.....	M. C. Niles.....	227,642	May 18	643	183	17	1105
Lath-bolter.....	J. Murray and F. W. Holt.....	226,537	Apr. 13	459	{ 129 130 }	{ 17 17 }	{ 834 928 }
Laths. Machine for making metallic.....	C. H. Carter.....	226,901	Apr. 27	903	251	17	928
Lathing and plastering.....	W. J. Garvey.....	226,056	Mar. 30	1293	365	17	718
Lathing. Wire.....	W. Brennan.....	228,030	May 25	1108	315	17	1188
Lathe.....	J. Davies and F. B. Chidester.....	225,921	Mar. 30	1121	320	17	691
Lathe and planer. Combined.....	F. W. G. Boettcher.....	229,800	July 13	347	96, 97	18	68
Lathe-dog.....	J. Hill.....	229,131	June 22	1184	324	17	1432
Lathe. Engine.....	H. Düdeck.....	230,253	July 20	886	251	18	160
Lathe feed mechanism.....	J. Houck.....	223,736	Jan. 20	636	171	17	130
Lathe for turning ovals.....	H. C. Heckendorn.....	233,753	Oct. 26	1189	330	18	960
Lathe. Gage.....	F. W. Clough.....	234,536	Nov. 16	875	{ 233 234 }	{ 18 18 }	{ 1149 1393 }
Lathe. Gage.....	J. M. Parker.....	235,562	Dec. 14	621	178	18	1393
Lathe. Hub-turning.....	C. Seymour.....	230,074	July 13	650	181	18	115
Lathe. Metal-turning.....	W. F. and J. Barnes.....	232,436	Sept. 21	686	189	18	652
Lathe. Rosette.....	C. V. Woerd.....	232,584	Sept. 21	842	{ 234 235 }	{ 18 18 }	{ 679 950 }
Lathe. Screw-cutting.....	C. W. Riley.....	233,702	Oct. 26	1133	316	18	950
Lathe-tool.....	J. V. Hoffman.....	233,509	Oct. 19	887	245	18	899
Lathes for cutting rubber and other rings. Auto- matic attachment to.....	J. T. Ridgway.....	235,022	Nov. 30	1499	403	18	1265
Lathes. Tool-post for turning.....	G. S. Fales.....	224,006	Feb. 3	41	12	17	210
Laundry use. Composition for.....	F. Pons y Pon.....	232,543	Sept. 21	806	.....	18	673
Lawn-rake.....	W. C. Quigley.....	226,419	Apr. 13	312	91	17	812
Lawn-sprinkler.....	C. Chamberlin.....	223,277	Jan. 6	83	21	17	17
Lead and crayon holder.....	H. C. Benson.....	223,467	Jan. 13	319	85	17	69
Lead and crayon holder.....	H. C. Benson and J. Hoffman.....	223,466	Jan. 13	318	85	17	69
Lead and crayon holder.....	C. W. Boman.....	235,122	Dec. 7	70	21	18	1293
Lead and crayon holder.....	H. Fraser.....	223,498	Jan. 13	360	96	17	76
Lead and crayon holder.....	A. C. Hafely.....	232,607	Sept. 28	883	244	18	692
Lead and crayon holder.....	J. Hoffman.....	223,510	Jan. 13	373	99	17	79
Lead and crayon holder.....	J. Hoffman.....	223,511	Jan. 13	374	99	17	79
Lead and crayon holder.....	J. Hoffman.....	223,512	Jan. 13	375	100	17	79
Lead and crayon holder.....	J. Hoffman.....	223,513	Jan. 13	375	100	17	79
Lead and crayon holder.....	J. Hoffman.....	225,379	Mar. 9	472	138	17	548
Lead and crayon holder.....	J. Hoffman.....	228,897	June 15	912	249	17	1384
Lead and crayon holder.....	J. Hoffman.....	235,149	Dec. 7	108	31	18	1299
Lead and crayon holder.....	J. Hoffman.....	235,150	Dec. 7	109	31	18	1299
Lead and crayon holder.....	C. Sneider.....	233,814	Oct. 26	1259	351	18	973
Lead and crayon holder.....	C. Sneider.....	234,084	Nov. 2	312	86	18	1038
Lead-fumes. Refining.....	G. T. Lewis and E. O. Bartlett.....	223,931	Jan. 27	888	236	17	181
Lead-fumes. Refining waste.....	G. T. Lewis.....	224,548	Feb. 17	667	190	17	343
Lead. Preparation of metallic.....	A. K. Eaton.....	225,356	Mar. 9	449	.....	17	544
Leader-pipe.....	E. Bittenbring.....	227,208	May 4	144	42	17	1001
Leaf-turner.....	W. and J. M. Burkart.....	228,600	June 8	534	142	17	1319
Leather and applying oil thereto. Machine for dry- ing and finishing.....	H. S. Johnston and W. H. Hum- phrey.....	232,508	Sept. 21	770	213	18	666
Leather articles. Manufacture of sewed.....	S. W. Wardwell, Jr.....	235,050	Nov. 30	1534	413	18	1271
Leather-fastener.....	G. S. Miller.....	223,939	Jan. 27	899	239	17	182



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. &c.	Vol.	Page.
Leather. Finishing	M. B. Tice and N. O'Connell	225,772	Mar. 23	944	-----	17	648
Leather-finishing machine	F. B. Batchelder	227,204	May 4	135	39	17	1000
Leather-finishing machine	J. Liedtkie	229,895	July 13	451	125	18	84
Leather fluffing or grounding machine	J. M. Jones	235,249	Dec. 7	225	61	18	1318
Leather-folding machine	C. S. Marshall	227,555	May 11	534	155	17	1077
Leather. Machine for making artificial	J. Tregurtha	231,692	Aug. 31	1266	356	18	478
Leather. Machinery for assorting pieces of	H. P. Fairfield	224,005	Feb. 3	40	12	17	209
Leather. Ornamentation of	A. J. Burkett	228,727	June 15	707	194	17	1356
Leather, pasteboard, &c. Machine for cutting	A. Teas	235,588	Dec. 14	653	185	18	1398
Leather pulp. Production of articles by solidifying	J. W. Hyatt and J. H. Stevens	228,463	June 8	357	-----	17	1294
Leather-punching machine	R. W. Owen	229,631	July 6	137	38, 39	18	29
Leather scouring and wringing machine	J. W. Cabbage	235,131	Dec. 7	80	25	18	1295
Leather-skiving machine	M. A. Holton	230,280	July 20	912	259	18	164
Leather-skiving machine	H. P. Roberts	235,172	Dec. 7	134	38	18	1304
Leather-skiving machinery	M. M. Clough	227,347	May 11	309	90	17	1040
Leather-splitting machine	J. A. Safford	230,895	Aug. 10	360	{ 104 105 }	18	313
Leather-stripping machine	H. K. Wagg and A. J. Shaw	234,094	Nov. 2	322	89	18	1040
Leather. Uniting pieces of	E. J. Beane	227,947	May 25	1012	290	17	1174
Ledger and bill-holder. Petit	R. and E. Donker	235,138	Dec. 7	93	28	18	1297
Leg-rest and reclining-chair	M. E. Keiran	234,041	Nov. 2	268	72, 73	18	1030
Lemon-squeezer	J. Fanning	226,166	Apr. 6	21	6	17	750
Lemon-squeezer	J. Fanning	233,339	Oct. 19	689	189	18	867
Lemon-squeezer	P. Fild	230,870	Aug. 10	330	96	18	309
Lemon-squeezer	J. Kessler	223,360	Jan. 6	175	46	17	32
Lens. Optical	L. Allen	223,627	Jan. 20	523	141	17	113
Letter-box	W. W. Barnes	231,523	Aug. 24	1065	299	18	440
Letter-box	W. Evans, Jr.	227,509	May 11	485	139	17	1069
Letter-box	T. R. Lowerre	227,552	May 11	531	154	17	1077
Letter-box	T. R. Lowerre	228,911	June 15	928	252	17	1386
Letter-box	H. C. Tront	229,209	June 22	1263	347	17	1443
Letter-box. Alarm	C. P. Herndon	227,005	Apr. 27	1028	285	17	948
Letter-box alarm. Electric	C. H. Carter	234,244	Nov. 9	513	141	18	1081
Letter-box indicator. Electrical	G. P. Herndon	228,071	May 25	1157	329	17	1197
Letter-holder alarm. Electric	A. Allison, Jr.	234,218	Nov. 9	488	133	18	1076
Level. Plumb	M. Harrison	223,343	Jan. 6	158	41	17	29
Level-rod. Engineer's	M. L. Lynch	234,997	Nov. 30	1470	395	18	1260
Level. Spirit	W. Langdon	232,982	Oct. 5	224	61	18	775
Leveler. Road	J. Fleming	227,232	May 4	174	50	17	1006
Leveling-instrument	J. W. Harmon	234,709	Nov. 23	1113	300	18	1194
Leveling-instruments. Tripod-head for	L. B. Denison	224,155	Feb. 3	206	60	17	237
Lever-clamp	W. T. Bausmith	235,064	Dec. 7	5	2	18	1281
Lever. Double-acting	E. Lambkin	223,928	Jan. 27	886	235	17	181
Lid-support	L. A. Thomas	235,315	Dec. 7	295	83	18	1330
Life-preserver	C. D. Oatman	234,606	Nov. 16	979	260	18	1166
Life-preserver	J. A. Steuart	227,314	May 4	255	74	17	1020
Life-preserver, buoy, and boat	J. G. Hill	227,779	May 18	803	227	17	1129
Life-preserving mattress	B. Palmer	228,671	June 8	608	163	17	1331
Life-preserving mattress	A. A. Young	236,135	Dec. 28	1337	366	18	1526
Life-protector for railway-rails	E. J. Hoffman	228,353	June 1	217	62	17	1262
Life-raft	M. E. Beasley	226,264	Apr. 6	132	37	17	769
Life-raft	T. B. Griffith	235,946	Dec. 28	1107	306	18	1488
Life-raft	L. H. Raymond and J. Roberts	227,054	Apr. 27	1092	302	17	958
Life-raft and settee. Combined	E. Harding	232,891	Oct. 5	117	31	18	757
Lifter:							
See Ash-pan lifter.	Ruling-machine pen-						
Barrel-lifter.	lifter.						
Belt-lifter.	Stove-lifter.						
Carriage-lifter.	Stove-cover lifter.						
Corpse-lifter.	Transom-lifter.						
Hammer-lifter.	Valve-lifter.						
Plate-lifter.	Wagon-body lifter.						
Lifting, carrying, and lowering heavy bodies. Apparatus for	J. C. Moore	225,408	Mar. 9	507	146	17	554
Lifting-jack	W. B. Allen	232,430	Sept. 21	678	187	18	650
Lifting-jack	C. J. Baldwin	235,404	Dec. 14	423	119	18	1360
Lifting-jack	J. Du Shane	224,819	Feb. 24	1006	285	17	414
Lifting-jack	H. R. Ferris	229,814	July 13	364	101	18	70
Lifting-jack	F. S. Hartzell	229,406	June 29	1503	414	17	1483
Lifting-jack	J. F. McCormick	229,727	July 6	249	69	18	45
Lifting-jack	D. H. Morrison	228,830	June 15	840	{ 229 230 }	17	1373
Lifting-jack	J. Paar	232,541	Sept. 21	804	223	18	672
Lifting-jack	J. A. Phillips	235,289	Dec. 7	272	76	18	1326
Lifting-jack	B. Porter and E. D. Barnum	230,569	July 27	1277	360	18	231
Lifting-jack	A. B. Probasco	232,367	Sept. 21	600	165	18	638
Lifting-jack	A. V. Ryder	230,966	Aug. 10	431	124	18	324
Lifting-jack	J. State	228,285	June 1	154	43	17	1251
Lifting-jack	E. E. Topo	235,179	Dec. 7	141	40	18	1305
Lifting-jack	W. C. Williams	224,499	Feb. 10	599	173	17	321
Lifting-jack	G. Wollet	234,105	Nov. 2	334	92	18	1042
Lifting-jack and stump-puller	W. W. Welton	227,335	May 4	278	81	17	1023
Lifting-jack. Combined screw and lever	F. B. Stevens	223,301	Jan. 6	117	29	17	21
Light:							
See Cigar-light.	Skylight.						
Electric light.	Vault-light.						
Head-light.							
Lighting. Apparatus for controlling the supply of combustible liquids for	W. W. Hopkinson	231,670	Aug. 31	1243	350	18	474
Lighting device	J. J. Lawler	224,192	Feb. 3	252	73	17	245
Lighting device	E. L. Megill	227,987	May 25	1063	302	17	1182
Lightning-guard for oil-tanks	A. A. Knudson	234,484	Nov. 16	817	219	18	1139
Lightning or fire. Protecting oil-tanks from	J. C. Chambers	234,173	Nov. 9	427	116	18	1065
Lightning-rod	J. J. Cole	229,382	June 29	1477	407	17	1489

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Drig.	Vol.	Page.
Lightning-rod connection	C. H. Lilly	230,293	July 20	926	263	18	167
Lightning-rod coupling	J. H. Weston	231,203	Aug. 17	716	201	18	376
Limb. Artificial.	A. A. Marks	234,597	Nov. 16	970	258	18	1165
Lime and cement kiln	B. F. Holland	224,912	Feb. 24	1103	317	17	431
Lime-juice. Preparation of	J. and T. D. Douglas	228,881	June 15	897		17	1381
Limekiln	A. Barron	227,203	May 4	134	39	17	999
Limekiln	C. H. Chapman	230,742	Aug. 3	168	49	18	274
Limekiln	R. Dunlop	229,811	July 13	356	99	18	69
Limekiln	W. Hughes and J. L. Foulk	231,321	Aug. 17	842	236	18	397
Limekiln	W. A. Page	227,872	May 18	899	256	17	1146
Line-clasp	A. L. Pitney	230,435	July 27	1128	317	18	206
Line-fastener	H. Fenton	225,923	Mar. 30	1129	321	17	692
Liniment	J. C. Bailey	223,306	Jan. 6	121		17	22
Liniment	M. Berger	228,026	May 25	1105		17	1188
Liniment	D. Collins	228,870	June 15	886		17	1380
Liniment	F. E. Marcum	234,048	Nov. 2	273		18	1031
Liniment	M. V. Watts	230,365	July 20	1008		18	180
Link-forming device	S. Uren	226,893	Apr. 27	895	249	17	927
Link-machine	H. Jerome	233,768	Oct. 26	1205	334	18	963
Link. Open	J. D. Sanders	235,457	Dec. 14	499	144	18	1372
Liquid-cooler	C. A. Maus	224,202	Feb. 3	265	76	17	247
Liquid drawing and measuring device	S. W. Cox	232,630	Sept. 28	909	250	18	697
Liquid-holder	H. Adams and C. C. Haynes	229,576	July 6	82	22	18	21
Liquid-meter	A. Hancock and H. S. Heath	234,275	Nov. 9	553	151	18	1087
Liquid-tester	J. A. Lindsay	232,519	Sept. 21	780	216	18	668
Liquids. Apparatus for drawing effervescent	T. Lieb	228,910	June 15	927	252	17	1386
Liquids. Apparatus for drawing off	H. Weber	234,735	Nov. 23	1143	308	18	1199
Liquids. Device for purifying	A. C. Humphreys	232,822	Oct. 5	32	9	18	744
Liquids from casks, &c. Apparatus for drawing	E. L. Starck	225,175	Mar. 2	218	61, 62	17	494
Liquors, &c. Preserving the flavor of fermented	O. Zvietusch	229,934	July 13	497	138	18	90
Liquoring apparatus. Centrifugal	F. O. Matthiessen and E. E. Quimby	223,525	Jan. 13	390	104	17	81
Liquoring apparatus. Centrifugal	E. E. Quimby	223,537	Jan. 13	404	108	17	84
Liquoring apparatus. Centrifugal	E. E. Quimby	223,539	Jan. 13	407	108	17	84
Lithographic press	J. A. Parks	228,271	June 1	138	39	17	1248
Lithographic process	A. Hoen	227,782	May 18	805	228	17	1129
Lock:							
See Alarm-lock.	Padlock.						
Bag-lock.	Permutation-lock.						
Bottle, &c., lock.	Piano-lock.						
Canal-lock.	Piano-forte tuning-pin lock.						
Car-door lock.	lock.						
Drawer-lock.	Piano-tuning-pin lock.						
Faucet-lock.	Pocket-book lock.						
Fire-arm lock.	Rowlock.						
Gun-lock.	Sash-lock.						
Hub-lock.	Seal-lock.						
Indicator-lock.	Switch-lock.						
Nut-lock.	Time-lock.						
Or-lock.	Trunk-lock.						
Ordinance-lock.	Wagon-lock.						
Lock	C. W. Ade	224,373	Feb. 10	464	133	17	299
Lock	J. Betjemann	224,380	Feb. 10	471	135	17	300
Lock	A. E. Deitz	225,808	Mar. 23	958	284	17	655
Lock	F. Hasdenteufel	224,288	Feb. 10	367	105	17	284
Lock	E. Juhl	223,739	Jan. 20	638	171	17	131
Lock	A. Lemke	234,592	Nov. 16	966	256	18	1164
Lock	C. F. Otto	228,379	June 1	249	70	17	1267
Lock	A. B. Prouty	235,963	Dec. 28	1131	313	18	1492
Lock	J. Sirugney	235,818	Dec. 21	927	258	18	1451
Lock	R. Volschwitz	227,327	May 4	270	79	17	1022
Lock and key	C. C. Dickermaw	234,002	Nov. 2	224	60	18	1023
Lock and latch. Combined	C. F. Batt	235,983	Dec. 28	1152	320	18	1496
Lock-box cover	W. B. Hamilton	225,123	Mar. 2	167	47	17	484
Lock-case	E. Parker	231,608	Aug. 24	1162	325	18	455
Lock-casings. Machinery for making	F. A. Brooks and H. Willard	231,209	Aug. 17	725	203	18	377
Lock-cylinder	W. H. Taylor	234,213	Nov. 9	481	131	18	1075
Lock-cylinder	H. R. Towne	234,630	Nov. 16	1005	268	18	1171
Lock-dial	E. Stockwell and W. H. Taylor	232,086	Sept. 7	251	69	18	565
Lock-hub	J. W. Lieb	234,302	Nov. 9	583	158	18	1092
Lock-nut	J. B. Atwood	226,263	Apr. 6	131	37	17	769
Lock-nut	H. A. Harvey	224,591	Feb. 17	725	206	17	353
Lock-nuts. Machine for slitting	A. Johnson	231,492	Aug. 24	1029	289	18	434
Lock-strike	H. Fellows	232,954	Oct. 5	190	51	18	769
Lock-washer for nuts	L. Garrigus	229,601	July 6	108	29	18	25
Locks. Attaching	S. Wedeles	235,598	Dec. 14	666	188	18	1400
Locked switch	J. W. Reinhart	224,953	Feb. 24	1147	323	17	437
Locked switch	J. W. Reinhart	225,643	Mar. 16	778	228	17	612
Locket	O. Johanson	228,819	June 15	826	226	17	1372
Locking-nut	J. B. Calkins	234,239	Nov. 9	507	140	18	1080
Locomotive	E. Fontaine	230,472	July 27	1176	331	18	214
Locomotive	J. B. Smith	228,406	June 1	274	77	17	1271
Locomotive	F. M. Stevens	232,776	Sept. 28	1080	295	18	725
Locomotive ash-pan	C. Bresnahan	231,208	Aug. 17	724	203	18	377
Locomotive ash-pan	C. O. Smith	226,799	Apr. 20	765	213	17	895
Locomotive ash-pan	C. O. Smith	226,800	Apr. 20	766	213	17	895
Locomotive-boiler	E. H. Angamar	226,694	Apr. 20	655	182	17	877
Locomotive-boiler	E. H. Ashcroft	235,400	Dec. 14	419	118	18	1359
Locomotive-boiler	W. P. Henszey	232,032	Sept. 7	191	51	18	555
Locomotive-boiler	H. I. Hoyt	226,231	Apr. 6	97	26	17	763

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Locomotive-boiler.....	H. A. Towne.....	230,363	July 20	1006	285	18	180
Locomotive-chair.....	O. Unzieker.....	229,500	June 29	1615	445	17	1499
Locomotive. Coal-burning.....	W. Buchanan, J. M. Toucey, and H. I. Hoyt.....	224,640	Feb. 17	778	220	17	361
Locomotive-cone.....	F. A. Perry.....	228,386	June 1	255	72	17	1268
Locomotive. Electro-magnetic.....	S. D. Field.....	232,253	Sept. 14	454	125	18	607
Locomotive-engine.....	J. W. Clardy.....	228,172	June 1	14	4, 5	17	1229
Locomotive-engine.....	A. Donato.....	226,290	Apr. 6	163	47	17	775
Locomotive-engine.....	W. P. Henszey.....	227,778	May 18	802	227	17	1129
Locomotive-engine.....	J. Howe, Jr.....	233,349	Oct. 19	703	192	18	869
Locomotive-engine.....	W. Mason.....	227,029	Apr. 27	1058	293	17	953
Locomotive-engine coupling-rod.....	W. Camerer.....	235,206	Dec. 7	180	49	18	1311
Locomotive exhaust apparatus.....	E. Longstreth.....	232,990	Oct. 5	232	64	18	776
Locomotive exhaust-nozzle.....	J. E. Martin.....	225,937	Mar. 30	1146	325	17	694
Locomotive fire-box.....	T. Delamere.....	233,481	Oct. 19	858	{ 236 237 }	18	894
Locomotive fire-box.....	W. H. Rushforth.....	223,863	Jan. 27	804	216	17	168
Locomotive fire-box.....	W. H. Rushforth.....	231,240	Aug. 17	759	212	18	353
Locomotive fire-box.....	J. K. Taylor and H. G. Burgess.....	232,780	Sept. 28	1088	298	18	727
Locomotive lift-pipe.....	T. Plain.....	231,356	Aug. 17	877	247	18	402
Locomotive-lubricator.....	W. P. Phillips.....	228,215	June 1	64	19	17	1238
Locomotive. Narrow-gage.....	W. P. Henszey.....	234,279	Nov. 9	557	152	18	1087
Locomotive signaling attachment.....	F. J. Wenker.....	227,936	May 25	995	{ 285 286 }	17	1171
Locomotive-spring.....	T. J. Farrell.....	233,666	Oct. 26	1096	304	18	944
Locomotive-stop.....	R. Busted.....	230,739	Aug. 3	165	48	18	273
Locomotive. Tank.....	G. Lentz.....	231,337	Aug. 17	860	242	18	399
Locomotives, &c. Blow-off apparatus for.....	G. Olfenius.....	223,604	Jan. 13	480	130	17	96
Locomotives. Cylinder blow-off for.....	E. Longstreth.....	232,046	Sept. 7	205	56	18	558
Locomotives, &c. Driving mechanism for street.....	S. Geoghegan.....	226,230	Apr. 6	97	25, 26	17	763
Locomotives. Exhaust attachment for safety-valves of.....	E. Longstreth.....	233,782	Oct. 26	1219	339	18	966
Locomotives. Tramway and other.....	J. Matthews.....	223,746	Jan. 20	647	174	17	132
Locomotives. Variable exhaust for.....	R. Rudd.....	224,307	Feb. 10	388	{ 109 110 }	17	287
Log-canter.....	R. Weir.....	233,306	Oct. 12	627	173	18	850
Log-conveyer.....	T. J. Neacy.....	231,186	Aug. 17	695	195	18	373
Log rolling and turning machine.....	W. E. Hill.....	233,755	Oct. 26	1192	331	18	961
Log-tripper.....	L. Gunter.....	235,763	Dec. 21	863	241	18	1440
Loom.....	A. L. and C. L. Bigsby.....	234,521	Nov. 16	857	229	18	1146
Loom.....	G. Crompton.....	223,998	Feb. 3	27	9, 10	17	207
Loom.....	G. Crompton and H. Wyman.....	230,243	July 20	866	{ 246 247 248 }	18	157
Loom.....	J. M. Flagge.....	228,050	May 25	1129	321	17	1192
Loom.....	L. J. Knowles.....	233,937	Nov. 2	126	34	18	1008
Loom.....	S. O'Neill.....	236,073	Dec. 28	1255	{ 346 347 357 }	18	1513
Loom.....	S. T. Thomas.....	236,110	Dec. 28	1302	{ 358 359 }	18	1520
Loom.....	H. Wyman.....	235,975	Dec. 28	1143	317	18	1494
Loom. Chair-seat.....	J. C. Miller.....	229,732	July 6	255	71	18	46
Loom. Circular.....	A. Ball.....	228,589	June 8	522	{ 139 140 }	17	1318
Loom doup-heddle.....	G. Ziegler.....	228,580	June 8	507	136	17	1315
Loom drop-box mechanism.....	J. Doering.....	225,115	Mar. 2	159	45	17	483
Loom drop-boxes. Machine for milling.....	M. A. Furbush and B. F. Meyer.....	229,115	June 22	1166	319	17	1429
Loom for weaving cartridge-belt fabric.....	A. Mills.....	236,058	Dec. 28	1239	{ 342 343 }	18	1510
Loom for weaving gauze fabrics.....	A. McLean.....	228,372	June 1	241	68	17	1266
Loom for weaving tubular fabrics.....	E. Arnold.....	231,748	Aug. 31	1336	376	18	488
Loom for weaving tubular fabrics.....	H. W. Cady.....	226,594	Apr. 20	541	152	17	859
Loom for weaving tubular fabrics.....	A. M. Pont.....	223,534	Jan. 13	401	{ 106 107 166 167 }	17	83
Loom for weaving tufted fabrics.....	C. E. Skinner and E. Tymeson.....	233,290	Oct. 12	603	{ 167 168 }	18	846
Loom for weaving wire-cloth. Power.....	T. McClusky.....	235,371	Dec. 14	386	106	18	1353
Loom. Hand.....	C. A. Fish.....	234,761	Nov. 23	1170	315	18	1203
Loom-heddle.....	J. H. Crowell.....	226,903	Apr. 27	905	252	17	929
Loom-heddle.....	J. L. Moss, Jr.....	235,098	Dec. 7	40	12	18	1288
Loom-heddle.....	E. Schöpp.....	224,797	Feb. 24	985	279	17	410
Loom-heddle.....	S. Sewall, Jr.....	226,886	Apr. 27	888	247	17	926
Loom jacquard apparatus.....	W. P. Uhlinger.....	230,591	July 27	1305	{ 367 368 }	18	236
Loom let-off mechanism.....	J. D. Cottrell.....	225,348	Mar. 9	439	127	17	543
Loom let-off mechanism.....	J. D. Cottrell.....	233,077	Oct. 12	346	95	18	802
Loom. Needle.....	C. E. Skinner and E. Tymeson.....	233,291	Oct. 12	608	{ 167 168 }	18	846
Loom pattern-chain.....	M. Lindner.....	224,530	Feb. 17	669	191	17	343
Loom. Power.....	P. Dorgeval.....	234,758	Nov. 23	1167	{ 314 315 }	18	1203
Loom-reed.....	E. Adamson.....	223,974	Feb. 3	2	1	17	203
Loom-shedding mechanism.....	H. Halcroft.....	228,191	June 1	36	12	17	1233
Loom-shedding mechanism.....	E. Ingraham.....	232,038	Sept. 7	196	53	18	556
Loom-shuttle.....	J. A. Bergan.....	232,874	Oct. 5	98	26	18	754
Loom-shuttle.....	F. J. Freese.....	233,925	Nov. 2	110	30	18	1005
Loom-shuttle.....	W. Holmes.....	231,042	Aug. 10	517	145	18	337
Loom-shuttle.....	J. K. Smith.....	228,837	June 15	843	231	17	1375
Loom-shuttle.....	N. J. Willis.....	225,673	Mar. 16	813	238	17	617
Loom shuttle-box mechanism.....	G. Crompton and H. Wyman.....	229,967	July 13	531	147	18	96
Loom shuttle-box mechanism.....	G. Crompton and H. Wyman.....	229,968	July 13	532	148	18	96
Loom shuttle-box mechanism.....	G. Crompton and H. Wyman.....	231,153	Aug. 17	647	153	18	365
Loom shuttle-box mechanism.....	L. J. Knowles.....	227,694	May 18	704	199	17	1114

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Loom shuttle-box motion.....	G. Crompton and H. Wyman.....	229,969	July 13	533	148	18	97
Loom shuttle-box motion.....	H. Wyman.....	227,667	May 18	668	190 191	17	1109
Loom shuttle-motion.....	I. G. Chandlee.....	225,566	Mar. 16	695	204	17	597
Loom shuttle-motion.....	L. E. Ross.....	233,551	Oct. 19	941	259	18	909
Loom shuttle-motion.....	T. A. Weber.....	232,319	Sept. 14	529	147	18	621
Loom shuttle-motion.....	T. A. Weber.....	235,661	Dec. 21	743	211	18	1420
Loom-shuttle operating mechanism.....	F. H. Davis.....	229,238	June 29	1296	357	17	1456
Loom-shuttle spindle.....	G. W. and G. F. Doe.....	231,773	Aug. 31	1362	383	18	493
Loom-shuttle spindle.....	H. A. Williams.....	233,388	Oct. 19	750	205	18	877
Loom stop-motion.....	R. B. Goodyear.....	232,485	Sept. 21	743	206	18	661
Loom stop-motion.....	F. O. Tucker.....	226,810	Apr. 20	776	216	17	897
Loom-temple.....	N. I. Allen.....	223,976	Feb. 3	3	2	17	203
Loom-temple.....	E. Hamilton.....	228,346	June 1	212	60	17	1261
Loom-temple.....	J. and L. Hardaker.....	228,256	June 1	116	33	17	1245
Loom-temple.....	J. B. Stameur.....	233,043	Oct. 5	297	83	18	787
Loom-temple. Self-acting.....	J. Hardaker.....	231,899	Aug. 31	1411	398	18	500
Loom-temple. Burr-roll for.....	J. H. Prouty and S. S. Sprague.....	226,548	Apr. 13	471	132	17	836
Looms. Appliance for lighting.....	N. P. Andrus.....	232,102	Sept. 14	275	77	18	277
Looms for weaving seamless corsets, &c. Feeding mechanism for.....	X. Stiegler.....	235,915	Dec. 28	1068	296	18	1482
Looms. Pile-wire mechanism for.....	G. Dixon.....	225,469	Mar. 16	585	170	17	578
Looms. Retracting device for the picker-sticks of.....	J. J. Geoghegan.....	231,305	Aug. 17	823	231	18	394
Lounges. Reversible back for.....	R. L. Fairbank.....	224,082	Feb. 3	131	37	17	225
Looms. Wire heddle for harnesses of fancy.....	L. J. Knowles.....	235,636	Dec. 21	716	203	18	1415
Lounge and bath. Combined.....	J. H. Lea Mond.....	233,153	Oct. 12	443	122	18	817
Lounge. Bedstead.....	L. W. Ott.....	235,006	Nov. 30	1482	399	18	1262
Lounges. Folding leg for extension.....	W. Seng.....	231,936	Sept. 7	65	16	18	535
Low-water alarm for boilers.....	N. L. Adams.....	230,213	July 20	829	234	18	152
Low-water alarm for steam-boilers.....	W. R. Jenkins, Jr.....	226,754	Apr. 20	720	200	17	887
Low-water gage and alarm.....	J. L. Hastings.....	226,171	Apr. 6	27	7, 8	17	751
Low-water indicator.....	G. L. Jaeger.....	230,282	July 20	913	260	18	165
Low-water indicator.....	C. F. Kurz.....	234,295	Nov. 9	575	156	18	1091
Lozenge-cutting machine.....	P. H. Paxon.....	231,679	Aug. 31	1253	352	18	476
Lozenge-machine.....	J. B. Eaton.....	227,505	May 11	482	138	17	1068
Lubricant.....	S. Frazer.....	233,497	Oct. 19	874	.....	18	897
Lubricants. Machine for testing.....	R. H. Thurston.....	230,158	July 20	766	213	18	142
Lubricating apparatus.....	C. W. Woodford.....	232,097	Sept. 7	261	72	18	567
Lubricating apparatus. Automatic.....	G. W. Baker.....	233,391	Oct. 19	753	206 207	18	878
Lubricating apparatus. Automatic.....	G. W. Baker.....	234,383	Nov. 16	699	187 188	18	1119
Lubricating apparatus for steam-engine cylinders.....	J. Wheelock.....	232,865	Oct. 5	81	23	18	752
Lubricating-can. Illuminated.....	W. Cooke.....	231,405	Aug. 24	935	264	18	419
Lubricating composition.....	C. F. Broadbent.....	233,197	Oct. 12	494	.....	18	827
Lubricating crank-pins. Device for.....	W. H. Merrick.....	236,056	Dec. 28	1237	341	18	1510
Lubricating device.....	B. Stauffer.....	227,186	May 4	114	34	17	996
Lubricating device.....	B. Stauffer.....	228,137	May 25	1228	349	17	1208
Lubricating loose pulleys. Device for.....	J. McCaffrey.....	235,094	Dec. 7	36	11	18	1287
Lubricator: See Automatic lubricator. Steam-engine lubricator. Axle-lubricator. Steam-machinery lubricator. Engine-lubricator. Vacuum-lubricator. Locomotive-lubricator.							
Lubricator.....	F. Beld.....	230,691	Aug. 3	110	32	18	264
Lubricator.....	D. H. Bumpus.....	233,323	Oct. 19	672	185	18	864
Lubricator.....	I. T. Hardy.....	233,347	Oct. 19	700	191	18	869
Lubricator.....	I. T. Hardy and N. H. Dibble.....	228,892	June 15	906	248	17	1383
Lubricator.....	H. C. Hodges and C. H. Parshall.....	225,985	Mar. 30	1208	342	17	704
Lubricator.....	S. H. Jenks.....	231,426	Aug. 24	960	271	18	423
Lubricator.....	F. McDonough.....	226,868	Apr. 27	868	241	17	923
Lubricator.....	W. and R. Paulson.....	227,570	May 11	557	159	17	1080
Lubricator.....	W. P. Phillips.....	228,216	June 1	66	19	17	1238
Lubricator.....	W. P. Phillips.....	228,217	June 1	67	20	17	1238
Lubricator.....	E. Webb.....	233,651	Oct. 26	1078	300	18	941
Lubricator.....	R. Whitehill.....	231,636	Aug. 24	1191	333	18	459
Lubricator.....	T. M. Wilson.....	226,433	Apr. 13	332	95	17	815
Lubricator for slides for steam-engines and other machinery.....	D. A. Woodbury.....	230,099	July 13	673	188	18	119
Lubricator for steam-valves of locomotives.....	G. W. Baker.....	227,199	May 4	130	38	17	999
Lumber. Compound.....	W. E. Brock.....	230,174	July 20	782	218	18	145
Lumber-driver's calk.....	C. M. Baker.....	230,686	Aug. 3	106	30	18	263
Lumber-drying device.....	C. C. Roberts.....	230,819	Aug. 3	253	72	18	288
Lumber-drying kiln.....	R. J. Rundell.....	223,862	Jan. 27	803	215	17	168
Lumber. Plow for cutting.....	D. R. Proctor.....	234,062	Nov. 2	288	79	18	1034
Lumber-polishing machine.....	B. Beehler.....	231,259	Aug. 17	779	218	18	386
Lumber-trimming machine.....	P. Musser.....	223,942	Jan. 27	901	239	17	153
Lumbermen. Tool for.....	J. F. Finkbeiner.....	235,076	Dec. 7	18	5	18	1234
Lunch-box.....	D. A. Delherty.....	231,156	Aug. 17	650	184	18	366
Machine-brake. Automatic.....	E. Pitman.....	234,426	Nov. 16	751	202	18	1128
Magnesia and the manufacture of refractory brick therefrom. Preparation of.....	A. Braconnier.....	232,110	Sept. 14	283	.....	18	578
Magnesia. Manufacture of carbonate of.....	F. Gutzkow.....	235,231	Dec. 7	207	.....	18	1315
Magnet. Electro.....	J. H. Bunnell.....	226,485	Apr. 13	305	112	17	824
Magnet. Electro.....	L. K. Fuller.....	232,398	Sept. 21	636	176	18	644
Magnet. Relay or sounder.....	G. Little.....	234,415	Nov. 16	737	199	18	1126
Magnets. Armature for electro.....	P. Wagner.....	227,863	May 18	891	254	17	1143
Magnets. Device for adjusting the armatures of electro.....	S. Bergmann.....	233,967	Nov. 2	171	44	18	1014
Magnetic electric machines. Armature and commutator for.....	E. Thomson and E. J. Houston.....	223,658	Jan. 20	552	149	17	117
Magnetic separator.....	G. Schaeffer.....	234,816	Nov. 23	1245	335	18	1215

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Magneto-electric generator.....	E. T. and J. F. Gilliland.....	231,790	Aug. 31	1389	{ 391 392 }	18	497
Magneto-electric machine.....	E. Bürgin.....	224,642	Feb. 17	780	221	17	361
Magneto-electric machine.....	O. Heikel.....	235,433	Dec. 14	464	{ 131 132 }	18	1267
Magneto-electric machine.....	W. Hochhausen.....	233,515	Oct. 19	894	247	18	900
Magneto-electric machine.....	A. G. Holcombe.....	232,498	Sept. 21	759	210	18	664
Magneto-electric machine.....	T. W. Livingston.....	229,719	July 6	239	66	18	43
Magneto-electric machine.....	E. A. Witherell.....	223,623	Jan. 13	504	136	17	100
Magneto-electric machine.....	J. J. Wood.....	231,745	Aug. 31	1331	375	18	488
Magneto-electric machines. Armature for.....	C. A. Secley.....	229,191	June 22	1242	341	17	1440
Magneto-electric machines. Automatic adjuster for commutator-brushes on.....	E. Thomson and E. J. Houston.....	223,659	Jan. 20	554	149	17	117
Magneto-electric machines. Commutator for.....	N. S. Keith.....	229,255	June 29	1318	363	17	1459
Magneto-electric machine.....	A. E. Briggs.....	226,386	Apr. 13	271	80	17	806
Magney-plants. Apparatus for cutting and slicing.....	W. A. Wright.....	235,603	Dec. 14	671	190	18	1401
Mail and traveling bag fastening.....	G. Wood, Jr.....	231,639	Aug. 24	1194	334	18	460
Mail-bag.....	C. J. Becktel and F. M. Horner.....	231,981	Sept. 7	135	34	18	545
Mail-bag.....	T. O. Bennett and S. Trenbath.....	229,358	June 29	1454	400	17	1477
Mail-bag.....	J. B. Gathright.....	235,760	Dec. 21	860	240	18	1439
Mail-bag.....	T. J. Mayo.....	230,308	July 20	941	267	18	169
Mail-bag.....	S. Strauss.....	235,059	Nov. 30	1547	416	18	1273
Mail-bag fastening.....	H. Heinze.....	231,574	Aug. 24	1124	315	18	448
Mail-bag fastening.....	D. R. Miller.....	223,857	Jan. 27	798	214	17	167
Mail-bag label-holder.....	J. W. and R. J. McKelvey.....	229,628	July 6	133	37	18	28
Mail-lock label-holder.....	J. E. Thomson.....	228,573	June 8	499	134	17	1314
Mailing-box.....	C. B. Sabiu.....	227,447	May 11	417	121	17	1057
Mallet.....	S. G. Howe.....	235,244	Dec. 7	220	59	18	1317
Malt and hop drier.....	A. J. Reynolds.....	229,639	July 6	144	41	18	30
Malt. Compressed.....	R. Prendergast and R. Free.....	234,428	Nov. 16	752	.....	18	1129
Malt. Extracting.....	J. A. Schaefer.....	234,815	Nov. 23	1244	.....	18	1215
Malt-kiln.....	J. Jakel.....	226,860	Apr. 27	852	236	17	921
Malt-kiln.....	W. Toepfer.....	226,890	Apr. 27	892	248	17	927
Malting apparatus.....	A. Marbeau.....	224,554	Feb. 17	673	192	17	344
Mangle.....	A. V. Semrad.....	233,031	Oct. 5	278	77	18	784
Mangle. Clothes.....	F. J. Rost.....	230,719	Aug. 3	143	42	18	270
Manure-drill.....	R. P. Ludwig.....	227,174	May 4	99	28, 29	17	994
Manure-fork.....	G. P. Ruhle.....	233,808	Oct. 26	1253	348	18	971
Manure. Mixed phosphatic.....	J. C. Perkins.....	233,875	Nov. 2	55	.....	18	996
Manure-rake.....	E. M. Hand.....	228,631	June 8	570	151	17	1324
Manures. Apparatus for drying and deodorizing liquid.....	A. Von Podewils.....	223,608	Jan. 13	487	131	17	97
Map.....	S. E. Gross.....	232,261	Sept. 14	463	128	18	609
Map.....	O. S. Haskell.....	230,010	July 13	583	{ 161 162 }	18	104
Marble, &c. Composition for cleansing.....	G. P. Cole.....	234,539	Nov. 16	881	.....	18	1150
Marble or stone. Manufacture of artificial.....	A. M. Richardson.....	233,948	Nov. 2	140	.....	18	1010
Marble. Ornamentation of furniture.....	J. Berkey.....	225,505	Mar. 16	622	182	17	584
Marble-veneering.....	T. C. Lamb.....	225,618	Mar. 16	751	.....	17	607
Marine transshipment and overland transportation.....	A. Toellner.....	232,685	Jan. 20	585	157	17	122
Marker. Check-row corn.....	C. E. Jones.....	229,140	June 22	1194	327	17	1433
Marker. Field.....	W. Barron.....	226,697	Apr. 20	658	183	17	877
Marker. Land.....	W. J. Kramer and L. Miller.....	224,929	Feb. 24	1122	320	17	433
Marking and slitting gage.....	C. Kinney.....	229,258	June 29	1320	364	17	1459
Marking-pot.....	H. F. W. Liebmam.....	227,117	May 4	28	9	17	983
Mash. Apparatus for making distillers' and brewers'.....	P. Zimmermann.....	230,517	July 27	1221	344	18	222
Mash-machine.....	W. Craig.....	228,177	June 1	19	6	17	1230
Mash rake. Whisky.....	D. L. Graves.....	228,190	June 1	36	11	17	1233
Mash-stirrer.....	G. Schock.....	228,222	June 1	73	21	17	1239
Mashing-machine.....	A. Dieryckx.....	225,213	Mar. 9	273	78	17	516
Mask-fastener.....	C. H. Dessart.....	226,225	Apr. 6	88	24	17	762
Mask-hoops. Balance-line for.....	W. F. Patterson.....	231,928	Sept. 7	57	14	18	534
Mast or standard for vessels, &c.....	J. R. Shackleton.....	228,126	May 25	1214	345	17	1206
Masts and ship-timbers. Splicing.....	S. Seed.....	231,974	Sept. 7	128	32	18	544
Mat: See Door-mat. Urinal mat. Oil-press mat.							
Mat.....	J. H. Robertson.....	232,760	Sept. 28	1060	289	18	722
Match-box.....	C. Buckley.....	228,598	June 8	532	142	17	1319
Match-box.....	J. Riedel and A. Pflüger.....	233,803	Oct. 26	1243	346	18	970
Match-box.....	T. Schafer.....	230,720	Aug. 3	144	42	18	270
Match-box.....	G. Wenström.....	229,780	July 6	310	86	18	54
Match. Friction.....	C. F. Bonhack.....	230,226	July 20	841	.....	18	154
Match-lighting attachment to hats, &c.....	F. L. Clark.....	224,878	Feb. 24	1071	307	17	425
Match-safe.....	F. S. Dangerfield.....	229,101	June 22	1150	315	17	1427
Match-safe.....	H. H. Elwell.....	228,452	June 8	344	95	17	1292
Match-splint.....	G. Hargreaves.....	235,765	Dec. 21	865	241	18	1440
Matches. Machine for heading friction.....	G. H. Millen.....	223,601	Jan. 13	478	129	17	96
Matches. Shipping-package for.....	O. C. Barber.....	225,041	Mar. 2	75	21	17	469
Matched hook.....	M. L. Mount.....	229,738	July 6	261	73	18	47
Mathematical instruments. Manufacturing.....	S. Darling.....	233,488	Oct. 19	865	239	18	896
Matrix-forming machine.....	R. L. Kimberly.....	227,017	Apr. 27	1039	{ 289 290 }	17	950
Matting. Straw.....	W. H. Townsend.....	225,735	Mar. 23	897	261	17	641
Mattress-frame.....	R. E. Campbell.....	232,334	Sept. 21	556	153	18	631
Mattress-making machine.....	C. P. Howe.....	233,512	Oct. 19	889	246	18	900
Mattresses. Machine for stretching wire.....	T. T. Prosser.....	231,091	Aug. 10	571	161	18	347
Meal-bin and sifter. Combined.....	C. B. Brown.....	224,326	Feb. 10	409	116	17	290
Measure and funnel. Combined.....	G. A. Keene.....	225,755	Mar. 23	928	268	17	646
Measure and register. Grain.....	C. S. Bell.....	233,136	Oct. 12	424	117	18	814
Measure and register. Grain.....	S. A. Boyd.....	232,445	Sept. 21	700	193	18	654
Measure and register. Grain.....	J. A. Porter.....	234,804	Nov. 23	1232	331	18	1213
Measure and register. Grain.....	D. A. Reynolds.....	234,891	Nov. 30	1341	361	18	1238
Measure and spring-scale. Combined tape.....	J. B. Williamson.....	230,592	July 27	1306	368	18	236
Measure. Automatic liquid.....	H. E. Marchand.....	232,527	Sept. 21	789	219	18	669



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Measure. Finger.....	R. T. Chapman.....	235,507	Dec. 14	557	159	18	1382
Measure. Grain.....	H. M. Dygert.....	224,158	Feb. 3	209	61	17	238
Measure. Shoe-maker's.....	C. Schaefer.....	234,205	Nov. 9	471	128	18	1073
Measure. Tape.....	C. E. and H. H. Leistner.....	233,358	Oct. 19	713	195	18	871
Measure. Wooden.....	J. Armanet.....	229,231	June 29	1289	354	17	1455
Measures. Adjustable gage for liquid.....	T. F. Longaker.....	229,431	June 29	1530	421	17	1488
Measurements upon fabrics. Machine for registering.....	T. Shaw.....	235,968	Dec. 28	1137	{ 314 315 }	18	1493
Measuring and mixing gage.....	A. B. Davis.....	232,466	Sept. 21	723	200	18	658
Measuring. Cloth.....	C. E. Hammond.....	230,937	Aug. 10	400	116	18	319
Measuring device for sacking grain.....	S. W. Turner.....	226,373	Apr. 6	248	73	17	791
Measuring device. Tailor's.....	J. Scanlan.....	233,441	Oct. 19	814	224	18	887
Measuring device. Tailor's.....	H. H. Woolson.....	225,678	Mar. 16	818	239	17	618
Measuring machine. Cloth.....	O. W. Dodson.....	223,716	Jan. 20	616	165	17	127
Measuring machine. Cloth.....	O. W. Dodson.....	230,757	Aug. 3	184	53, 54	18	276
Measuring machine. Cloth.....	B. K. Parker.....	228,381	June 1	251	71	17	1267
Measuring machine. Cloth.....	J. Pfeleger.....	230,809	Aug. 3	242	70	18	286
Measuring machine. Cloth.....	J. E. Windlo.....	230,381	July 20	1024	289	18	183
Measuring machine. Hydraulic surface.....	W. W. Lummus.....	233,361	Oct. 19	717	196	18	871
Measuring-receptacle.....	I. D. Peck.....	227,919	May 25	979	280	17	1169
Measuring-reel for bagging, &c.....	C. J. Le Roy.....	235,264	Dec. 7	242	66	18	1321
Measuring-rod. Folding and extension.....	W. W. Massey.....	230,640	Aug. 3	55	16	18	255
Measuring-stick. Shoe-maker's.....	W. H. Varnum.....	226,429	Apr. 13	328	94	17	814
Measuring-tablet. Shoe-maker's.....	H. White.....	223,569	Jan. 13	446	120	17	90
Measuring tank and cock. Liquid.....	G. W. Aldrich.....	228,799	June 15	804	219	17	1369
Measuring tank. Fluid.....	S. M. Cawker.....	228,866	June 15	882	240	17	1379
Meat and vegetable cutter.....	G. O. Keiter.....	236,038	Dec. 28	1215	335	18	1506
Meat and vegetable slicer.....	A. and A. Iske.....	225,387	Mar. 9	479	140	17	549
Meat-chopper.....	A. T. Huff.....	228,535	June 8	447	122	17	1306
Meat-chopper.....	G. P. Norton.....	231,187	Aug. 17	695	195	18	373
Meat. Curing and canning sausage.....	H. Verhage.....	224,563	Feb. 17	682	194	17	346
Meat-cutter.....	J. B. Add.....	230,728	Aug. 3	151	45	18	271
Meat-cutter.....	E. Bourne.....	235,850	Dec. 28	991	275	18	1470
Meat-cutter.....	R. Hübner.....	234,478	Nov. 16	812	217	18	1138
Meat-cutter.....	C. Kieser.....	232,275	Sept. 14	478	133	18	612
Meat-cutter.....	C. F. Leopold.....	230,708	Aug. 3	132	39	18	268
Meat-cutter.....	D. H. Lintner.....	223,810	Jan. 27	739	199	17	158
Meat-cutting machine.....	C. A. Murray.....	226,184	Apr. 6	45	11	17	754
Meat-cutting machine.....	L. Steigert.....	234,499	Nov. 16	834	{ 222 223 }	18	1142
Meat, &c. Fabric for packing.....	F. Rohe.....	229,471	June 29	1581	.....	17	1495
Meat, fish, &c. Machine for filling cans with.....	A. H. Moore.....	227,283	May 4	220	65	17	1014
Meat, fruit, &c., press.....	B. A. Stevens.....	232,619	Sept. 28	896	247	18	694
Meat-hook.....	B. F. Clark.....	225,345	Mar. 9	437	127	17	542
Meat in cans. Machine for packing.....	C. S. Locke.....	227,276	May 4	213	62	17	1013
Meat into cans. Machine for packing.....	W. Steuerwald.....	227,854	May 18	880	251	17	1142
Meat in the carcass. Preserving.....	R. Jones.....	231,807	Aug. 31	1410	.....	18	500
Meat. Machine for filling cans with.....	L. Cutting.....	229,590	July 6	97	26	18	23
Meat-mincing machine.....	W. and T. C. Ovens.....	235,561	Dec. 14	619	{ 177 178 }	18	1393
Meat-packing device.....	E. Detwiler.....	225,467	Mar. 16	582	169	17	577
Meat-packing machine.....	C. S. Locke.....	223,522	Jan. 13	366	{ 102 103 }	17	81
Meat. Preserving.....	H. Warden.....	226,136	Mar. 30	1381	.....	17	732
Meat-preserving compound.....	F. Artimini.....	228,016	May 25	1097	.....	17	1186
Meat-press.....	G. T. Bassett.....	224,629	Feb. 17	766	217	17	359
Meat-press.....	A. Thurston.....	227,860	May 18	889	243	17	1143
Meat-tenderer.....	J. B. Fleck.....	231,301	Aug. 17	821	230	18	393
Meats. Compound for curing and preserving.....	W. Archdeacon.....	234,844	Nov. 30	1298	.....	18	1229
Mechanical motor.....	O. M. Bunnell and N. M. Tenney.....	227,728	May 18	748	210	17	1120
Mechanical motor.....	N. J. Miller.....	228,098	May 25	1187	337	17	1202
Mechanical motor.....	J. G. Marcy.....	226,409	Apr. 13	301	87	17	810
Mechanical motor for churns, &c.....	M. F. Sears.....	232,552	Sept. 21	816	225	18	674
Mechanical movement.....	A. S. Baker.....	232,104	Sept. 14	277	77	18	577
Mechanical movement.....	R. C. Barrie, Jr.....	226,592	Apr. 20	539	151	17	858
Mechanical movement.....	G. T. Beck.....	235,984	Dec. 28	1153	320	18	1496
Mechanical movement.....	C. Beidler.....	232,232	Sept. 14	423	117	18	603
Mechanical movement.....	W. F. Cochran.....	234,906	Nov. 30	1361	365	18	1241
Mechanical movement.....	W. P. Drew.....	233,335	Oct. 19	685	188	18	866
Mechanical movement.....	R. P. Garsed.....	235,628	Dec. 21	709	201	18	1414
Mechanical movement.....	J. F. Gordon.....	232,486	Sept. 21	744	{ 206 207 }	18	662
Mechanical movement.....	C. Hammelmann.....	225,702	Mar. 23	861	{ 251 252 }	17	635
Mechanical movement.....	H. Hassenpflug.....	235,432	Dec. 14	463	131	18	1367
Mechanical movement.....	J. Hill.....	226,751	Apr. 20	715	{ 199 200 }	17	836
Mechanical movement.....	S. Isch.....	224,916	Feb. 24	1111	318	17	432
Mechanical movement.....	W. S. Marshall.....	227,911	May 25	970	278	17	1167
Mechanical movement.....	H. L. Moulton.....	232,538	Sept. 21	802	222	18	672
Mechanical movement.....	W. J. Perkins.....	228,779	June 15	775	212	17	1365
Mechanical movement.....	L. Scofield.....	230,349	July 20	991	281	18	177
Mechanical movement.....	J. E. Underwood.....	229,295	June 29	1367	375	17	1465
Mechanical movement.....	J. D. Wright.....	225,262	Mar. 9	325	95	17	526
Mechanic's horse.....	J. F. Warner.....	226,431	Apr. 13	330	95	17	815
Medical compound.....	F. Champagne.....	231,759	Aug. 31	1348	.....	18	490
Medical compound.....	C. Dengel.....	229,874	July 13	431	.....	18	80
Medical compound.....	W. I. Lewis.....	226,084	Mar. 30	1332	.....	17	722
Medical compound.....	J. A. Pratt.....	231,611	Aug. 24	1167	.....	18	455
Medical compound.....	A. Rippetoe.....	235,704	Dec. 21	798	.....	18	1429
Medical compound.....	T. J. Robbins.....	224,954	Feb. 24	1148	.....	17	437
Medical compound for ague.....	O. Taylor.....	231,120	Aug. 10	604	.....	18	352
Medicinal compound.....	H. J. Boughton.....	233,063	Oct. 12	332	.....	18	799
Medicinal preparation for the hair.....	S. Foster.....	235,223	Dec. 7	200	.....	18	1314

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Medicine-case	J. Barnett and C. T. Hurlburt	225,320	Mar. 9	409	119	17	538
Medicine-case	J. Barnett and C. T. Hurlburt	227,719	May 18	741	207	17	1119
Medicine. Cough	J. A. King	234,785	Nov. 23	1202		18	1209
Medicine, &c. Device for administering	G. M. Arnold	231,747	Aug. 31	1335	375	18	488
Medicine for the treatment of diphtheria	L. L. Polk	223,859	Jan. 27	800		17	167
Medicine-measuring tube	S. D. Mott	230,960	Aug. 10	424	122	18	323
Mercurial fumes. Apparatus for condensing	T. W. Dresser	234,462	Nov. 16	792	213	18	1135
Mercury ores. Process of and apparatus for reducing	R. F. Knox and J. Osborn	233,520	Oct. 19	903	249	18	902
Mercury, &c. Package for	R. S. Williams	231,740	Aug. 31	1326	373	18	487
Metal. Apparatus for coating small articles with	M. Briggs	230,857	Aug. 10	316	93	18	306
Metal articles. Forming ornamented hollow	C. E. Mason	233,422	Oct. 19	793	219	18	884
Metal-bending tool	S. Patterson	225,415	Mar. 9	513	148	17	555
Metal bodies. Attaching bottoms to cylindrical	G. W. Knapp	232,405	Sept. 21	647	178	18	646
Metal bracket	A. B. Denison	227,966	May 25	1038	295	17	1178
Metal. Coating	E. Morewood and J. H. Rogers	230,488	July 27	1193	336	18	217
Metal-cutting shears	J. H. Gee	227,684	May 18	689	196	17	1112
Metal. Die for drawing strips of	D. T. Sanford	231,933	Sept. 7	62	15	18	534
Metal from ores. Apparatus for extracting	T. G. Hall	232,889	Oct. 5	115	30	18	757
Metal from ores. Apparatus for extracting	T. G. Hall	233,505	Oct. 19	882	244	18	898
Metal molds. Lining for	G. Webb	223,565	Jan. 13	439		17	90
Metal. Mounting mother-of-pearl and similar substances on	C. Fest	223,441	Jan. 13	289	77	17	65
Metal objects ornamented with incrustations of celluloid, rubber, horn, &c. Producing	O. Von Corvin	233,076	Oct. 12	345		18	801
Metal plates. Joining	J. Schaedler	232,074	Sept. 7	237	65	18	563
Metal plates. Machine for beveling the edges of	R. Briggs	231,146	Aug. 17	638	191	18	364
Metal rings. Making jointed	R. C. Ellrich and G. S. Allen	232,475	Sept. 21	731	203	18	659
Metal rods. Device for cutting off and screw-threading	H. Burin	225,048	Mar. 2	89	24	17	471
Metal rods or bars. Machinery for coiling	P. H. Standish	224,852	Feb. 24	1043	297	17	420
Metal. Roller-die machine for the manufacture of articles from	G. J. Capewell	227,611	May 18	606	174 175	17	1099
Metal-shearing machine	J. Kihart	232,829	Oct. 5	43	12	18	745
Metal-slotting apparatus	W. H. Taylor	233,952	Nov. 2	145	39	18	1011
Metal-slotting apparatus	W. H. Taylor	233,953	Nov. 2	146	39	18	1011
Metal-slotting apparatus	W. H. Taylor	234,089	Nov. 2	318	87, 88	18	1039
Metal stamping, punching, and shearing machine	M. Herzberg	226,612	Apr. 20	563	157	17	863
Metal surfaces. Machine for ornamenting	J. Hewitson and E. Tolman	225,829	Mar. 23	1009	290	17	658
Metal surfaces. Tool for ornamenting	J. Hewitson	225,828	Mar. 23	1008	289	17	658
Metal tubes. Machine for forming seamless	A. T. Whitehouse	227,462	May 11	437	126	17	1060
Metal vessels. Machine for making rims for tops of	W. W. Jones	225,878	Dec. 28	1020	282	18	1475
Metal-working machine. Compound	R. B. Jentsch	234,037	Nov. 2	262	71	18	1029
Metal-working press	G. H. Perkins and W. McNaught	228,554	June 8	473	127	17	1311
Metals from ores. Extracting	O. Hofmann	223,913	Jan. 27	865		17	177
Metals from their ores. Machine for separating } precious	G. Hall	234,565	Nov. 16	916	246 247	18	1156
Metals. Galvanizing	W. P. Breeding	230,463	July 27	1164	323	18	212
Metals. Plating	M. G. Wheeler and W. A. Chapman	234,736	Nov. 23	1144	308	18	1199
Metallic can and box	M. Bray	228,512	June 8	422	115	17	1303
Metallic can. Hermetically-sealed	J. Broughton	228,031	May 25	1109	315	17	1188
Metallic hoop	E. Hale	226,065	Mar. 30	1302	367	17	719
Metallic line or cord and fastening for suspending } pictures, &c.	G. Hookham	236,031	Dec. 28	1207	333 334	18	1505
Metallic patterns. Repairing	W. Taylor	229,064	June 22	1110	302	17	1421
Metallizing fibrous, cellular, and porous substances	R. Waitz	225,186	Mar. 2	228	64	17	495
Metallurgical furnace	L. D. Chapin	223,480	Jan. 13	336	90	17	73
Metallurgical furnace	W. Metcalf	227,120	May 4	33	10	17	984
Metallurgical furnaces. Apparatus for supplying hydrocarbons to	M. Coventry, Jr., and M. Wilks	230,748	Aug. 3	174	51	18	275
Metallurgical furnace	E. Savage	228,944	June 15	962	261	17	1391
Meter:							
See Fluid-meter.	Liquid-meter.						
Gas-meter.	Water-meter.						
Grain-meter.							
Meters. Connection for	A. Mackey	230,882	Aug. 10	344	99	18	310
Micrometer-gage for wire and sheet metal	S. Darling	235,133	Dec. 7	84	26	18	1296
Microphone	E. Berliner	224,573	Feb. 17	700	200	17	348
Microphone	E. Berliner	225,790	Mar. 23	966	278	17	652
Microphone	E. Berliner	234,744	Nov. 23	1154	311	18	1201
Microphone	L. J. Crossley	233,660	Oct. 26	1089	303	18	943
Microphone	L. De Locht	224,400	Feb. 10	492	142	17	304
Microphone	S. D. Houpt	230,550	July 27	1258	355	18	228
Microphone	J. P. Livermore	232,734	Sept. 23	1025	282	18	716
Microphone-transmitter	T. A. Watson	231,247	Aug. 17	765	214	18	384
Microscope	E. J. Bausch	230,688	Aug. 3	108	31	18	264
Microscope	E. J. Molera and J. C. Cebrian	230,320	July 20	952	270 271	18	171
Microscope-slides. Turn-table for	W. H. Bullach	226,648	Apr. 20	607	169	17	869
Microscopic objects. Turn-table for mounting	J. W. Sidle	235,030	Nov. 30	1509	406	18	1266
Middlings-dressing machine	A. Crabtree	234,968	Nov. 30	1436	386	18	1254
Middlings-purifier	J. M. Case and C. Stein	225,564	Mar. 16	692	203	17	596
Middlings-purifier	J. W. Collins	227,882	May 25	937	269	17	1163
Middlings-purifier	A. R. Guilder	225,218	Mar. 9	278	80	17	517
Middlings-purifier	J. J. Hendrickson and G. W. Berstler	228,070	May 25	1155	329	17	1196
Middlings-purifier	T. D. Isbell	225,753	Mar. 23	926	263	17	645
Middlings-purifier	J. M. Ludwig	224,705	Feb. 17	844	240	17	373
Middlings-purifier	J. B. Martin	228,367	June 1	234	66	17	1265
Middlings-purifier	T. B. Osborne	224,719	Feb. 17	857	244 245	17	376
Middlings-purifier	J. H. Redfield	234,668	Nov. 23	1091	293	18	1191
Middlings-purifier	J. Russell	223,818	Jan. 27	751	201	17	159
Middlings-purifier	G. T. Smith	236,101	Dec. 23	1290	355	18	1518
Middlings-purifier	W. L. Teter	224,969	Feb. 24	1165	333	17	440
Middlings-purifier attachment	S. C. McMaster	230,485	July 27	1190	335	18	216

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Middlings-purifiers, &c. Automatic feeder for.....	F. C. Boynton.....	234,747	Nov. 23	1156	{ 311 312 }	18	1201
Middlings-purifiers, millstone-curbs, &c. Apparatus for catching dust generated in.....	C. E. Thayer.....	231,376	Aug. 17	898	253	18	406
Middlings-purifiers. Traveling brush for.....	W. A. Reimers and J. Bierbauer.....	223,950	Jan. 27	908	242	17	184
Middlings-separator.....	A. N. Wolf.....	230,597	July 27	1310	{ 369 370 }	18	237
Milk and cream cooler.....	B. H. Reynolds.....	225,764	Mar. 23	936	271	17	647
Milk and other vessels. Detachable discharge-stop- per and connection for.....	E. Cowles.....	226,838	Apr. 27	825	230	17	916
Milk-bucket and stool. Combined.....	G. C. Bovey.....	235,123	Dec. 7	72	21	18	1293
Milk-can.....	J. H. Brown and E. B. Rosa.....	232,329	Sept. 21	552	152	18	630
Milk-can.....	W. H. Burnett.....	231,531	Aug. 24	1074	302	18	441
Milk-can.....	H. Thompson.....	235,044	Nov. 30	1526	411	18	1269
Milk-can. Automatic-measuring.....	G. Koons.....	230,136	July 20	741	207	18	138
Milk-can handle.....	G. Routh.....	235,299	Dec. 7	280	79	18	1327
Milk-can skimmer.....	G. W. Bolton.....	224,864	Feb. 24	1055	301	17	422
Milk-cans. Water-tank for.....	J. W. Dorsey and F. L. Reed.....	227,503	May 11	479	138	17	1068
Milk-cooler.....	A. R. Brown.....	229,373	June 29	1468	404	17	1479
Milk-cooler.....	C. C. Buell and J. G. Cudworth.....	232,388	Sept. 21	627	173	18	642
Milk-cooler.....	F. G. Butler.....	228,602	June 8	536	143	17	1319
Milk-cooler.....	D. N. Calkins.....	233,726	Oct. 26	1161	323	18	955
Milk-cooler.....	C. C. Haynes.....	228,756	June 15	742	{ 204 205 }	17	1360
Milk-cooler.....	S. S. Hayward.....	232,026	Sept. 7	184	49	18	554
Milk-cooler.....	B. F. Hewes.....	233,506	Oct. 19	884	244	18	898
Milk-cooler.....	S. Hill.....	227,007	Apr. 27	1030	285	17	948
Milk-cooler.....	P. L. Kimball and J. B. Williams.....	229,830	July 13	381	105	18	72
Milk-cooler.....	W. E. Lincoln.....	229,262	June 29	1323	365	17	1460
Milk-cooler.....	E. Price.....	229,180	June 22	1231	338	17	1439
Milk-cooler.....	J. G. Smith.....	233,037	Oct. 5	289	81	18	786
Milk-cooler.....	T. Stahler.....	228,412	June 1	279	79	17	1272
Milk-cooler.....	D. Van Hovenberg.....	223,661	Jan. 20	557	149	17	118
Milk-cooler.....	E. M. Way.....	230,211	July 20	826	234	18	152
Milk cooler and heater.....	H. W. Weiss.....	230,976	Aug. 10	445	127	18	326
Milk cooling and warming apparatus.....	A. H. Snyder.....	224,485	Feb. 10	585	{ 168 169 }	17	319
Milk-cooling apparatus.....	H. W. and S. S. Horton.....	231,802	Aug. 31	1403	395	18	500
Milk-cooling apparatus.....	E. A. Roth.....	229,474	June 29	1583	437	17	1495
Milk, &c., jar.....	L. P. Whiteman.....	225,900	Mar. 23	1082	309	17	671
Milk-pail holder.....	A. C. Dodge.....	228,327	June 1	195	54	17	1258
Milk-pail. Measuring.....	I. V. Ketcham.....	231,811	Aug. 31	1413	398	18	501
Milk-purifying and cream-raising apparatus.....	J. W. Powers.....	224,844	Feb. 24	1033	294	17	418
Milk-receptacle.....	M. P. Allen.....	228,583	June 8	510	137	17	1316
Milk-setting apparatus.....	H. F. King.....	226,327	Apr. 6	200	59	17	738
Milk-skimming apparatus.....	F. H. Hall.....	234,670	Nov. 23	1071	288	18	1188
Milk, &c. Vessel for containing.....	W. G. Jones.....	232,186	Sept. 14	371	103	18	593
Milking apparatus. Cow.....	A. A. Durand.....	223,491	Jan. 13	351	94	17	75
Milliner's steamer and presser.....	T. Hicks, Jr.....	232,716	Sept. 28	1008	277	18	713
Mill:							
See Bark-mill. Hominy-mill.							
Cane-mill. Ore-grinding mill.							
Cider-mill. Paint-mill.							
Cockle-mill. Rice-hulling mill.							
Coffee and rice mill. Rolling-mill.							
Coffee and spice mill. Saw-mill.							
Coffee-grinding mill. Smut-mill.							
Corn cutting and Stamp-mill.							
grinding mill. Steel blooming and slab-							
Dish-mill. bing mill.							
Disintegrating-mill. Tread-mill.							
Fanning-mill. Triturating-mill.							
Feed-mill. Water or wind mill.							
Grain-mill. Windmill.							
Grinding-mill.							
Grinding and reduc-							
ing mill.							
Mill-burr staffing device.....	J. Moore.....	233,427	Oct. 19	800	221	18	885
Mill for crushing and grinding grain, &c.....	C. S. Wenger.....	232,863	Oct. 5	79	23	18	752
Mill for grinding and reducing grain, &c.....	L. Smith.....	232,419	Sept. 21	666	184	18	648
Mill for grinding corn in shuck.....	I. A. Hedges.....	231,573	Aug. 24	1123	314	18	448
Mill for manufacturing and sifting meal, &c.....	S. R. Thompson.....	233,577	Oct. 19	970	267	18	914
Mill for reducing, levigating, &c.....	L. Smith.....	223,769	Jan. 20	673	181	17	136
Mill for reduction.....	E. P. Baugh.....	233,833	Nov. 2	6	2	18	987
Mill-spindle bush.....	E. Kuehne and D. W. Bryant.....	231,962	Sept. 7	113	28	18	542
Mills. Balloon for collecting flour-dust in.....	S. L. Bean.....	235,197	Dec. 7	161	46	18	1309
Mills. Germ-detacher for roller.....	A. Fredenhagen.....	234,122	Nov. 9	367	101	18	1054
Millstone and spindle adjusting device.....	W. Freimuth.....	231,032	Aug. 10	507	143	18	336
Millstone-balancing device.....	J. G. Thompson.....	227,321	May 4	264	77	17	1021
Millstone-balancing device.....	J. B. Withee.....	229,787	July 6	320	89	18	55
Millstone chop-conveyer.....	J. H. Ellis, A. Scott, and E. S. Ed- mondson.....	224,410	Feb. 10	505	145	17	306
Millstone-clearing device.....	W. H. Hall.....	230,269	July 20	901	256	18	163
Millstone-dress.....	T. H. Bale.....	233,132	Oct. 12	420	116	18	813
Millstone-dress.....	A. D. Farling.....	232,603	Sept. 28	878	243	18	692
Millstone-dresser.....	D. S. Greenwald.....	226,610	Apr. 20	560	{ 156 157 }	17	862
Millstone-dressing machine.....	W. E. Browning.....	229,858	July 13	414	{ 114 115 }	18	78
Millstone-dressing machine.....	D. S. Greenwald.....	224,085	Feb. 3	133	38	17	225
Millstone-dressing machine.....	P. M. Haas.....	228,630	June 8	568	151	17	1324
Millstone-dressing machine.....	J. Kleckner.....	234,917	Nov. 30	1373	{ 369 370 }	18	1243
Millstone-dressing machine.....	G. F. Letellier.....	236,049	Dec. 28	1229	339	18	1508

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Millstone-dressing machine .....	A. L. Teeter .....	232,861	Oct. 5	77	22	18	752
Millstone-dressing machine .....	D. Vaughan .....	230,725	Aug. 3	147	44	18	270
Millstone-dressing machine .....	E. H. C. A. T. Vulpius .....	225,442	Mar. 9	540	155	17	559
Millstone-driver .....	A. B. Crowell and A. Talbott .....	224,884	Feb. 24	1076	308	17	426
Millstone-driver .....	W. H. Dickey .....	228,043	May 25	1119	319	17	1190
Millstone-driver .....	J. W. Donnel .....	236,003	Dec. 28	1174	325	19	1500
Millstone-driver .....	W. Johnson .....	224,291	Feb. 10	370	106	17	284
Millstone-driver .....	H. N. Pomeroy .....	224,350	Feb. 10	437	125	17	295
Millstone-driver .....	J. R. Reynolds .....	228,838	June 15	849	232	17	1375
Millstone-driver .....	P. Sladkey .....	235,033	Nov. 30	1514	407	18	1267
Millstone-feeding device .....	J. G. Houlsworth .....	223,514	Jan. 13	376	100	17	79
Millstone furrow-staff .....	U. H. Palmer .....	230,331	July 20	970	275	18	174
Millstone paint-staff .....	W. Lehmann .....	223,853	Jan. 27	790	211	17	165
Millstone paint-staffs. Truing .....	W. Lehmann .....	230,881	Aug. 10	343	99	18	310
Millstones and tramping spindles. Machine for leveling .....	D. E. Baughey .....	224,812	Feb. 24	999	223	17	413
Millstones. Hand-tool for dressing .....	W. L. Teter .....	224,970	Feb. 24	1166	333	17	440
Millstones on their spindles. Device for balancing .....	J. Comerford .....	233,207	Oct. 12	503	139	18	828
Mining-machine .....	D. H. Lintner .....	223,809	Jan. 27	738	199	17	158
Mineral water and charging liquids with nature's carbonic-acid gas. Apparatus for collecting natural .....	A. K. McMurray .....	227,698	May 18	709	201	17	1115
Mineral waters. Apparatus for generating gas for .....	J. Collins .....	231,538	Aug. 24	1083	304	18	442
Miner's combination-tool .....	W. S. Rosecrans .....	224,957	Feb. 24	1150	329	17	438
Mines. Method and apparatus for destroying fire-damp in .....	R. Blackledge .....	232,443	Sept. 21	697	192	18	653
Mining and drilling machine. Coal .....	W. Weaver .....	229,781	July 6	311	87	18	54
Mining and excavating apparatus .....	E. M. Hugentobler .....	228,356	June 1	220	62	17	1263
Mining and quarrying machine. Coal .....	W. Weaver .....	228,148	May 25	1237	351	17	1210
Mining. Apparatus for hydraulic .....	W. B. Farwell .....	231,221	Aug. 17	738	207	18	379
Mining-drill .....	J. R. Howells .....	223,590	Jan. 13	466	126	17	94
Mining-machine .....	F. M. Lechner .....	223,626	Jan. 13	507	137	17	100
Mining-machine .....	F. M. Lechner .....	232,280	Sept. 14	484	{ 134 135 }	18	613
Mining-machine .....	G. D. Whitcomb .....	232,792	Sept. 28	1103	302	18	729
Mining machine. Coal .....	D. W. Siprell .....	225,494	Mar. 16	610	177	17	582
Mining-drills. Steel bar for .....	W. A. Sweet .....	228,485	June 8	391	108	17	1298
Mirror .....	J. P. Short .....	226,362	Apr. 6	238	70	17	789
Mirror. Hand .....	C. E. Page .....	229,909	July 13	464	129	18	86
Mirror-hanger .....	C. W. Prescott .....	234,609	Nov. 16	981	261	18	1167
Mirror holder. Hand .....	M. S. Webb and R. L. Myrick .....	231,126	Aug. 10	608	172	18	353
Mirror. Reflecting .....	C. Weidt .....	228,706	June 8	644	174	17	1336
Mirror. Toilet .....	F. J. Kaldenberg .....	229,828	July 13	379	105	18	72
Mitering-machine .....	T. Schreppe .....	223,819	Jan. 27	752	201	17	159
Mitt-shaping machine .....	W. P. Jennings .....	234,286	Nov. 9	565	154	18	1089
Mold:							
See Brick-machine mold. Electrotpe-mold.							
Cigar-mold. Glass-mold.							
Cigarette-mold. Ingot-mold.							
Dog-iron mold. Snppository-mold.							
Mold-board chill .....	J. P. Zeller .....	235,327	Dec. 7	310	87	18	1333
Mold-board clamp .....	W. McNary .....	233,868	Nov. 2	49	14	18	995
Molded articles of manufacture. Composition of material for making .....	O. F. Woodward .....	225,261	Mar. 9	324	95	17	526
Molder's flask .....	J. M. Springer .....	232,084	Sept. 7	250	68	18	565
Molding and compressing artificial blocks or bricks. Machine for .....	A. Walker .....	226,256	Apr. 6	122	34, 35	17	767
Molding and perforating plastic substances. Apparatus for .....	A. Stearns .....	224,239	Feb. 3	300	87	17	253
Molding apparatus .....	S. J. Adams .....	235,191	Dec. 7	153	44	18	1307
Molding apparatus .....	G. Woolnough .....	225,314	Mar. 9	403	117	17	536
Molding in sand. Machine for .....	W. Aikie and W. W. Drummond .....	224,570	Feb. 17	695	{ 198 199 }	17	347
Molding-machine .....	H. L. Eames .....	229,593	July 6	101	27	18	24
Molding-machine .....	C. Ezard .....	226,655	Apr. 20	614	172	17	870
Molding-machine .....	G. Sebold .....	233,032	Oct. 5	279	77, 78	18	784
Molding-machines. Apparatus for turning cutters for .....	L. Wenchel .....	234,635	Nov. 16	1010	{ 269 270 }	18	1172
Molding. Picture-frame .....	W. H. Grubbs .....	224,590	Feb. 17	724	206	17	353
Molding purposes. Pattern-block for .....	G. Woolnough .....	230,979	Aug. 10	448	{ 128 129 }	18	327
Moldings. Composition for covering .....	A. Kryzinski .....	223,593	Jan. 13	471	.....	17	95
Moldings. Machine for dressing .....	J. C. Brandon .....	224,867	Feb. 24	1058	301	17	422
Monkey-wrench .....	S. H. Bellows .....	228,437	June 8	328	90	17	1239
Monkey-wrench .....	W. H. Glover .....	231,557	Aug. 24	1105	310	18	445
Monkey-wrench .....	J. Moffet .....	226,339	Apr. 6	217	63	17	785
Mop-head .....	J. K. Collins .....	232,688	Sept. 28	977	269	18	708
Mop-holder for scrubbing-pails .....	G. W. Kepner .....	227,263	May 4	203	59	17	1011
Mop-wringer .....	A. L. Burris .....	228,601	June 8	535	143	17	1319
Mop-wringer .....	C. B. Pettengill .....	223,242	Jan. 6	40	10	17	9
Mortar-mixing machine .....	S. L. Shellenberger .....	232,150	Sept. 14	321	91	18	585
Mosquito-bar frame .....	D. F. Agnew .....	229,071	June 22	1118	304	17	1422
Moss. Treating and curing Spanish .....	H. T. Cummings .....	224,000	Feb. 3	32	.....	17	208
Moth and insect proof carpet-lining and merchandise-packing .....	C. Noyes and R. J. White .....	230,891	Aug. 10	356	103	18	312
Moth and water proofing compound .....	D. M. Lamb .....	224,296	Feb. 10	375	.....	17	235
Moth and water proofing compound .....	D. M. Lamb .....	224,297	Feb. 10	377	.....	17	235
Motion. Apparatus for transmitting chronometric .....	H. J. Wenzel .....	228,577	June 8	503	135	17	1315
Motion. Device for converting .....	M. W. Clay .....	233,982	Nov. 2	188	49	18	1018
Motion. Device for converting .....	E. H. Crocker .....	231,955	Sept. 7	99	24	18	539
Motion. Device for converting .....	T. Donato .....	231,547	Aug. 24	1093	307	18	443
Motion. Device for converting .....	R. Gray .....	227,244	May 4	184	54	17	1007
Motion. Device for converting .....	P. A. Hitchcock and C. E. Wakeman .....	225,376	Mar. 9	469	137	17	548
Motion. Device for converting .....	J. H. Townley .....	227,707	May 18	718	203	17	1116

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Motion. Device for converting reciprocating into rotary	C. Schurmann	226,359	Apr. 6	235	69	17	789
Motion. Device for reversing	G. B. Brayton	235,732	Dec. 21	828	232	18	1434
Motion. Device for transmitting	T. S. E. Dixon	230,250	July 20	881	250	18	159
Motion. Device for transmitting circular	T. S. E. Dixon	229,875	July 13	431	119	18	60
Motion. Device for transmitting rotary	C. L. French	224,169	Feb. 3	227	66	17	241
Motion. Gear mechanism and connecting-rod for converting rotary into reciprocating	A. J. Simmons	233,810	Oct. 26	1256	350	18	972
Motion. Machine for converting horizontal into rotary	G. W. Richardson	228,968	June 15	985	268	17	1394
Motion. Mechanism for converting	T. J. Bell	229,026	June 22	1070	292	17	1415
Motion. Mechanism for transmitting	A. Johnson	233,518	Oct. 19	900	248	18	902
Motion. Transmitting rotary	C. L. French	224,168	Feb. 3	226	66	17	241
Motive power. Production of	T. M. Fell	224,669	Feb. 17	811	230	17	367
Motor:							
See Car-motor.	Mechanical motor.						
Churn-motor.	Rotary motor.						
Electric motor.	Sewing-machine motor.						
Electro - magnetic motor.	Spring-motor.						
Gas-motor.	Thermal motor.						
Hand and foot motor.	Tidal motor.						
Hydraulic motor.	Vapor-motor.						
	Water-motor.						
Motor	W. R. Boerner	233,319	Oct. 19	668	184	18	864
Motor	L. P. Ducournau	231,774	Aug. 31	1363	383	18	493
Motor	B. P. Kimball	235,880	Dec. 28	1023	283	18	1475
Motor for sewing-machines and other purposes	W. Bowers and W. H. Harrison	226,967	Apr. 27	982	273	17	941
Motor for working churns, &c.	A. T. Powell	234,061	Nov. 2	286	79	18	1034
Mower	P. P. Coler	234,965	Nov. 30	1431	385	18	1253
Mower	J. W. Gunnels and D. O. Shives	228,890	June 15	904	247	17	1383
Mower	H. A. Howe	225,607	Mar. 16	739	218 219	17	605
Mower	J. J. Knapp	228,082	May 25	1168	332	17	1199
Mower	E. Smith	233,035	Oct. 5	285	80	18	785
Mower	G. S. White and G. W. Calef	226,216	Apr. 6	80	21	17	760
Mower	J. D. Wilber	225,960	Mar. 30	1180	335	17	700
Mower	C. M. Young	223,572	Jan. 13	448	121	17	91
Mower and bearing. Lawn	E. F. Morse	225,232	Mar. 9	296	85	17	520
Mower and reaper knife	D. F. Sutton	226,129	Mar. 30	1374	388	17	731
Mower and reaper knives. Machine for grinding	C. Askew	233,182	Oct. 12	478	131	18	824
Mower and reaper knives. Machine for grinding	J. W. Elliot	233,082	Oct. 12	352	97	18	803
Mower and reaper knives. Machine for grinding	L. V. G. Fois	230,119	July 20	719	201	18	135
Mower and reaper knives. Machine for sharpening	J. M. Connel	226,037	Mar. 30	1273	359	17	714
Mower attachment. Lawn	C. G. Baldwin	228,854	June 15	867	226	17	1377
Mower-cylinders. Device for facilitating the drill- ing of	J. Braun	225,966	Mar. 30	1187	337	17	701
Mower-cylinders. Device for facilitating the rivet- ing of cutters to	J. Braun	225,967	Mar. 30	1188	338	17	701
Mower. Lawn	F. L. Cutter	223,889	Jan. 27	836	223	17	173
Mower. Lawn	H. H. Dille and E. W. McGuire	231,286	Aug. 17	805	226	18	391
Mower. Lawn	W. C. Farnum	224,523	Feb. 17	639	184	17	339
Mower. Lawn	H. G. Fiske	233,494	Oct. 19	871	241	18	897
Mower. Lawn	H. G. Fiske	234,553	Nov. 16	900	242	18	1153
Mower. Lawn	C. Gates	227,162	May 4	89	24	17	992
Mower. Lawn	F. Hanson	225,703	Mar. 23	863	252	17	635
Mower. Lawn	T. D. Marsh	224,706	Feb. 17	845	241	17	374
Mower. Lawn	S. W. Martin and C. H. Paxson	229,725	July 6	246	68	18	44
Mower. Lawn	J. H. Olcott	223,750	Jan. 20	651	175	17	133
Mower. Lawn	J. H. Olcott	227,048	Apr. 27	1084	299 300	17	957
Mower. Lawn-edge	T. Hanley	223,505	Jan. 13	365	97	17	77
Mowers and reapers. Cutting apparatus for	G. Beekman	227,950	May 25	1019	291	17	1175
Mowers. Grass-gathering attachment for lawn	J. Jenkins	233,516	Oct. 19	895	247	18	900
Mowers. Track-clearer for	W. Prindle	229,181	June 22	1233	339	17	1439
Mowing and reaping machine	C. Taylor	225,663	Mar. 16	798	233	17	615
Mowing-machine	I. E. Merritt	233,426	Oct. 19	798	220	18	885
Mowing-machine	A. Rank	235,378	Dec. 14	396	109	18	1354
Mowing-machine	J. F. Stewart	226,683	Apr. 20	645	179	17	875
Mowing-machine	W. A. Wood and J. M. Rosebrooks	230,598	July 27	1311	370	18	237
Mowing-machine pitman-rod	D. Horn	227,254	May 4	194	57	17	1009
Mowing-machines. Twisting attachment for	G. G. Frelinghuysen	231,788	Aug. 31	1384	390 391	18	496
Mucilage or paste vessel	C. Sabin	232,906	Oct. 5	133	35	18	760
Mucilage-stand. Reservoir	W. J. Schilling	232,211	Sept. 14	401	111	18	598
Muff. Ear	I. B. Kleinert	227,364	May 11	328	96	17	1042
Muscle and skin beater	M. L. Holbrook	233,758	Oct. 26	1197	332	18	962
Music. Apparatus for illustrating the principles of	J. C. McClain	229,545	July 6	48	13	18	15
Music-chart	J. W. Chambers	229,379	June 29	1474	406	17	1479
Music-chart	G. S. Rice	228,839	June 15	850	232	17	1375
Music-chart for key-board instruments	G. S. Rice	223,245	Jan. 6	44	11	17	10
Music-holder	C. W. Millspaugh	235,695	Dec. 21	786	221	18	1427
Music-leaf turner	F. L. Becker	225,550	Mar. 16	675	197 198	17	593
Music-leaf turner	T. Berry	224,861	Feb. 24	1051	299 300	17	421
Music-leaf turner	A. Heilprin	229,313	June 29	1393	381 382	17	1469
Music-leaf turner	J. A. Kline	234,676	Nov. 23	1079	290	18	1189
Music-leaf turner	G. H. Nash	224,943	Feb. 24	1136	324 325	17	436
Music-leaf turner	A. Ramseyer	229,554	July 6	57	16	18	17
Music-leaf turner	M. Ransom and W. C. Stone	229,839	July 13	395	109	18	75



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Music-rack.....	W. F. Mills.....	227,034	Apr. 27	1063	295	17	954
Music-rack.....	E. C. Strange.....	230,446	July 27	1145	322	18	209
Music-recording attachment for keyed instruments..	L. A. Fernow.....	227,101	May 4	11	3, 4	17	980
Music-rest for piano-fortes.....	E. A. G. Roulstone.....	224,042	Feb. 3	78	23	17	217
Music-sheets. Apparatus for cutting pattern-plates to be used in the manufacture of perforated	G. B. Kelly.....	223,676	Jan. 20	576	155	17	120
Music-sheets for mechanical musical instruments.....	E. P. Needham.....	224,715	Feb. 17	852	243	17	375
Music-stand.....	E. B. Mansfield.....	229,622	July 6	127	35	18	28
Music-stand.....	J. W. Pepper.....	229,271	June 29	1335	367	17	1461
Music-stand. Portable.....	A. Hewes.....	224,687	Feb. 17	830	235	17	371
Music-stand. Portable folding.....	J. A. Crocker.....	227,152	May 4	79	21	17	990
Musical attachment for chairs and sofas.....	M. Schrenkeisen.....	223,394	Jan. 6	208	55	17	38
Musical chart.....	W. E. Cleave and H. Gordon.....	223,994	Feb. 3	24	8	17	207
Musical-instrument insulator.....	C. S. Weir.....	228,962	June 15	979	266	17	1393
Musical instrument. Mechanical.....	O. H. Arno.....	227,714	May 18	733	206	17	1113
Musical instrument. Mechanical.....	O. H. Arno.....	231,978	Sept. 7	131	33	18	545
Musical instrument. Mechanical.....	O. H. Arno.....	232,165	Sept. 14	343	96, 97	18	588
Musical instrument. Mechanical.....	O. H. Arno.....	233,721	Oct. 26	1156	321	18	954
Musical instrument. Mechanical.....	J. A. Carter.....	226,714	Apr. 20	675	188	17	880
Musical instrument. Mechanical.....	G. H. Chinnock and W. W. Bennett.....	226,279	Apr. 6	146	42	17	772
Musical instrument. Mechanical.....	I. M. Furbish.....	233,147	Oct. 12	437	120	18	817
Musical instrument. Mechanical.....	G. H. Ireland.....	231,323	Aug. 17	844	237	18	397
Musical instrument. Mechanical.....	E. P. and O. H. Needham.....	224,716	Feb. 17	853	243	17	375
Musical instrument. Mechanical.....	C. A. Needham.....	226,341	Apr. 6	219	63	17	786
Musical-instrument reed.....	H. Smith.....	233,038	Oct. 5	290	81	18	786
Musical instrument. Stringed.....	T. Cobb.....	223,318	Jan. 6	133	33	17	24
Musical instrument. Stringed.....	W. H. Percival.....	225,997	Mar. 30	1225	346	17	707
Musical instruments. Apparatus for marking note-cylinders for	C. Fogelberg and G. W. Graves.....	230,540	July 27	1247	{ 351 } 352	18	226
Musical instruments. Automatic key-board attachment for	W. J. Crane.....	224,152	Feb. 3	204	59	17	237
Musical instruments. Device for stretching sheep-skin on	C. Rohlf.....	235,381	Dec. 14	400	111	18	1355
Musical instruments. Foot-guard for lyres of.....	D. T. Peek.....	224,948	Feb. 24	1142	327	17	437
Musical instruments. Key-board attachment for.....	J. E. Jones.....	231,723	Aug. 31	1306	367	18	484
Musical instruments. Key-board attachment for.....	C. C. Reynolds.....	223,387	Jan. 6	202	53	17	37
Musical instruments. Key-board attachment for.....	C. C. Reynolds.....	231,849	Aug. 31	1461	410	18	508
Musical instruments. Key-board attachment for.....	J. F. White.....	227,083	Apr. 27	1128	310	17	963
Musical instruments. Key-board attachment for.....	J. F. White.....	227,461	May 11	435	126	17	1060
Musical instruments. Machine for perforating sheets of paper for automatic	R. T. Smith.....	223,866	Jan. 27	808	217	17	168
Musical instruments. Manufacturing perforated sheets for mechanical	G. B. Kelly.....	223,675	Jan. 20	575	.....	17	120
Musical instruments. Marking the keys of key-boards for	J. B. D. Black.....	229,365	June 29	1460	402	17	1478
Musical instruments. Pneumatic action for.....	A. Fowler.....	231,786	Aug. 31	1381	390	18	496
Musical instruments. Tail-piece for.....	C. Rohlf.....	235,382	Dec. 14	400	111	18	1355
Musical reed-instrument.....	M. O. Nichols.....	229,837	July 13	388	{ 107 } 108	18	73
Musical string-instruments. Key for.....	J. Singer.....	234,643	Nov. 16	1022	273	18	1173
Musical top or gyrophone.....	M. A. Wier.....	229,218	June 22	1270	349	17	1444
Muslin. Machine for sizing.....	C. Metzler.....	231,078	Aug. 10	553	157	18	344
Nail:							
See Fence-nail. Picture-nail.							
Horseshoe-nail. Shoe-nail.							
Nail and spike extractor.....	R. R. Wilson.....	229,220	June 22	1273	350	17	1444
Nail-assorting machine.....	O. P. Cobb.....	225,919	Mar. 30	1118	319	17	691
Nail-driving machine.....	J. J. Bark.....	231,475	Aug. 24	1009	284	18	431
Nail-extractor.....	A. F. Gerald.....	232,703	Sept. 28	992	273	18	711
Nail-extractor.....	F. Kraengel.....	231,332	Aug. 17	854	240	18	399
Nail-forging machine.....	D. Armstrong.....	226,437	Apr. 13	338	97	17	815
Nail-machines. Apparatus for feeding.....	W. Briggs.....	235,667	Dec. 21	750	213	18	1421
Nail-making machine.....	N. C. Lewis.....	225,066	Mar. 2	108	30	17	475
Nail-picker.....	E. C. Taylor.....	223,410	Jan. 6	227	60	17	42
Nail-plato feeder.....	A. Trumbour.....	225,438	Mar. 9	536	154	17	558
Nail-pointing die.....	J. M. E. Baackes.....	231,255	Aug. 17	775	217	18	386
Nails and spikes. Machine for making hook-headed	L. Patterson.....	224,471	Feb. 10	572	165	17	317
Nails. Annealing.....	W. W. Miner.....	230,644	Aug. 3	59	17	18	256
Nails, &c. Apparatus for retailing.....	H. C. Draper and T. O. Bowyer.....	235,753	Dec. 21	852	238	18	1438
Nails. Die for pointing wire.....	J. M. E. Baackes.....	231,254	Aug. 17	773	216	18	385
Nails. Machine for separating and driving.....	A. Newton and T. Hibbard.....	230,648	Aug. 3	63	18	18	257
Nails. Process and tool for driving and clinching.....	C. P. Ball.....	231,979	Sept. 7	133	33	18	545
Nailing-machine.....	H. P. Fairfield.....	230,624	Aug. 3	33	9	18	252
Nailing-machine.....	L. Goddu.....	226,062	Mar. 30	1300	366	17	718
Nailing-machine.....	A. Knowlton.....	224,339	Feb. 10	426	{ 121 } 122	17	293
Nailing-machine.....	A. Knowlton.....	225,527	Mar. 16	649	189	17	588
Nailing-machine.....	G. McKay.....	229,442	June 29	1540	424	17	1489
Nailing-machine.....	G. McKay and W. L. Tobey.....	230,642	Aug. 3	57	16	18	256
Nailing-machine.....	G. McKay and W. L. Tobey.....	230,956	Aug. 10	420	121	18	323
Nailing-machine.....	G. McKay and W. L. Tobey.....	230,957	Aug. 10	422	122	18	323
Nailing-machine. Hand.....	S. E. Mower.....	225,482	Mar. 16	598	174	17	550
Nailless box.....	J. A. Maloney and J. Compton.....	231,434	Aug. 24	969	273	18	424
Nap-forming apparatus.....	J. R. Russell.....	227,585	May 11	571	163	17	1082
Navigation. Device for slack-water.....	H. Haupt.....	225,125	Mar. 2	169	48	17	485
Neck-band shaper.....	W. H. H. Tracy.....	223,778	Jan. 20	684	184	17	138
Necklace-clasp.....	D. Untermyer.....	230,510	July 27	1214	342	18	220
Necklace-fastening.....	L. L. King.....	229,257	June 29	1320	363	17	1459
Necktie.....	C. C. Hancock.....	225,982	Mar. 30	1205	341	17	704
Necktie.....	E. H. Pendleton, Jr., and E. S. Perin.....	227,294	May 4	229	68	17	1016
Necktie.....	J. H. Reynolds.....	229,334	June 29	1420	389	17	1472
Necktie or scarf holder.....	C. B. Carman.....	229,519	July 6	11	3	18	10
Necktie-shield.....	W. H. H. Tracy, Jr.....	235,527	Dec. 14	553	166	18	1386
Necktie-shield.....	H. H. Thayer.....	227,190	May 4	120	35	17	997
Needle.....	I. Benjamin.....	234,371	Nov. 9	656	179	18	1104

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & G.	Vol.	Page.
Needle. Dipping.....	J. Gardam.....	234,110	Nov. 2	339	93	18	1043
Needle-threader.....	D. H. Jaccard.....	232,185	Sept. 14	371	103	18	593
Needle-wrapper.....	J. M. Woodward.....	234,514	Nov. 16	850	227	18	1145
Negatives. Apparatus for retouching.....	E. B. Core.....	232,115	Sept. 14	287	81	18	579
Net. Fly.....	D. Fischbeck.....	227,353	May 11	316	91	17	1041
Net. Fly.....	J. Pfaffner and J. Kriebs.....	233,798	Oct. 26	1238	344	18	969
Net for horses. Fly.....	G. R. Ayres.....	232,917	Oct. 5	148	39	18	762
Net for horses. Fly.....	S. H. Coover.....	235,212	Dec. 7	187	51	18	1312
Net for horses. Fly.....	J. W. Ringrose.....	233,806	Oct. 26	1250	347	18	971
Net. Leather horse.....	J. C. Ayres.....	228,019	May 25	1100	313	17	1187
Netted fabrics. Frame for drying.....	H. Dewacle.....	225,212	Mar. 9	272	78	17	516
Netting attachment. Mosquito.....	W. H. Miller.....	230,487	July 27	1193	336	18	217
Newspaper-wrapper machine.....	H. J. Wickham.....	233,450	Oct. 19	826	{ 227 228 229 }	18	880
Nickel-depositing solution.....	J. Powell.....	229,274	June 29	1338	.....	17	1462
Nickel. Electro-deposition of.....	J. H. Potts.....	223,860	Jan. 27	800	.....	17	167
Nickel. Electro-deposition of.....	J. Yates.....	224,263	Feb. 3	324	.....	17	257
Nickel-plating. Solution for.....	H. L. Haas.....	230,872	Aug. 10	332	.....	18	309
Nickel-plating. Solution for.....	C. G. Pendleton.....	232,615	Sept. 28	892	.....	18	694
Nickel. Solution for electro-deposition of.....	J. Powell.....	228,389	June 1	258	.....	17	1268
Nickel. Solution for the electro-deposition of.....	J. H. Potts.....	232,755	Sept. 28	1052	.....	18	721
Nipper for boat-ropes.....	W. McKay.....	231,072	Aug. 10	546	154	18	342
Nippers and cork-extractor. Combined.....	C. Graef.....	235,427	Dec. 14	458	130	18	1365
Nipple-shields for nursing purposes. Making glass.....	A. Geyer.....	235,522	Dec. 14	574	163	18	1385
Nitro-derivatives from cellulose, &c. Manufacturing.....	J. A. Arrault, J. and C. Schmerber.....	230,216	July 20	833	.....	18	153
Nitro-glycerine. Manufacturing.....	F. Mann.....	226,867	Apr. 27	868	.....	17	923
Noise-muffler.....	E. D. Eames.....	228,744	June 15	728	200	17	1358
Non-conducting covering.....	B. F. Smith.....	225,767	Mar. 23	939	272	17	647
Nose-guard for steel-grinders. Magnetic.....	E. Steddard.....	233,891	Nov. 2	75	19	18	999
Nose-ring. Animal.....	A. W. Ehle.....	234,861	Nov. 30	1304	352	18	1232
Nozzle. Exhaust-draft.....	W. S. Salisbury.....	226,204	Apr. 6	67	17	17	758
Nozzle. Noise-quieting.....	F. C. Curie.....	226,905	Apr. 27	908	253	17	929
Nozzle. Noise-quieting steam.....	W. Zellner.....	227,341	May 4	285	83	17	1025
Nozzle. Spray.....	C. E. Glazier.....	226,060	Mar. 30	1298	366	17	718
Numbering or paging machine.....	G. Lautenschlager.....	232,983	Oct. 5	225	61	18	775
Nursery-chair.....	J. C. Klett.....	233,257	Oct. 12	566	156	18	839
Nursery-chair. Convertible.....	A. B. Stevens.....	231,689	Aug. 31	1262	355	18	477
Nursery-chair. Convertible.....	H. S. Hale.....	224,181	Feb. 3	238	70	17	243
Nursery-pin.....	W. R. Clough.....	230,240	July 20	858	243	18	156
Nursery-pin.....	W. R. Clough.....	234,962	Nov. 30	1128	384	18	1252
Nut for screw-bolts.....	A. T. Huff.....	228,816	June 15	822	225	17	1371
Nut-lock.....	E. P. Alexander.....	230,913	Aug. 10	377	109	18	315
Nut-lock.....	I. D. Beach, Jr.....	224,630	Feb. 17	767	217	17	359
Nut-lock.....	W. Broad.....	224,325	Feb. 10	408	116	17	290
Nut-lock.....	J. M. Dakan.....	235,751	Dec. 21	851	237	18	1438
Nut-lock.....	F. B. Davis.....	223,219	Jan. 6	13	3	17	5
Nut-lock.....	W. J. French.....	234,766	Nov. 23	1175	317	18	1204
Nut-lock.....	A. Hackman and G. W. Tinsley.....	225,121	Mar. 2	165	47	17	424
Nut-lock.....	M. Haneline.....	234,277	Nov. 9	555	151	18	1087
Nut-lock.....	J. Harding.....	230,009	July 13	582	161	18	104
Nut-lock.....	J. H. Hayes.....	223,909	Jan. 27	861	228	17	177
Nut-lock.....	J. Hemp.....	227,775	May 18	800	226	17	1123
Nut-lock.....	T. C. Henry.....	225,128	Mar. 2	174	49	17	426
Nut-lock.....	J. G. Herold.....	234,127	Nov. 9	373	102	18	1055
Nut-lock.....	S. Larson.....	224,448	Feb. 10	549	158	17	313
Nut-lock.....	G. Lyon.....	231,338	Aug. 17	860	242	18	400
Nut-lock.....	E. A. Mercer.....	225,713	Mar. 23	872	255	17	637
Nut-lock.....	W. P. Miller.....	227,812	May 18	835	236	17	1134
Nut-lock.....	W. S. Mitchell.....	227,810	May 18	834	236	17	1134
Nut-lock.....	R. T. Morton.....	227,284	May 4	221	65	17	1014
Nut-lock.....	G. Neilson.....	234,054	Nov. 2	250	76	18	1032
Nut-lock.....	J. W. Payne.....	229,175	June 22	1227	337	17	1438
Nut-lock.....	J. S. Rosensteel.....	236,092	Dec. 28	1273	351	18	1516
Nut-lock.....	C. Rukenbrod.....	232,369	Sept. 21	604	166	18	639
Nut-lock.....	J. A. Sammis.....	234,894	Nov. 30	1344	362	18	1239
Nut-lock.....	J. T. Sipe.....	229,764	July 6	295	82	18	52
Nut-lock.....	S. S. Smith.....	235,708	Dec. 21	801	225	18	1430
Nut-lock.....	C. A. Smyth.....	235,583	Dec. 14	650	184	18	1397
Nut-lock.....	F. Strub and J. P. Stoeffler.....	231,371	Aug. 17	892	251	18	405
Nut-lock.....	J. G. Thompson.....	227,663	May 18	665	189	17	1108
Nut-lock.....	J. W. Tombow.....	234,350	Nov. 9	633	172	18	1100
Nut-lock.....	C. A. Tucker.....	232,090	Sept. 7	255	70	18	565
Nut-lock.....	C. R. Whitman.....	228,064	June 15	981	267	17	1394
Nut-lock.....	J. P. Wilson.....	223,622	Jan. 13	503	136	17	100
Nut-lock.....	J. H. Wygant.....	226,947	Apr. 27	960	266	17	937
Nut-lock washer.....	A. C. Israel.....	227,111	May 4	22	7	17	932
Nut-machine.....	G. Dunham.....	231,956	Sept. 7	100	25, 26	18	540
Nut-punching machine.....	W. Shields.....	225,429	Mar. 9	527	151	17	557
Nut-roaster.....	P. J. Rumsey.....	233,026	Oct. 5	273	75	18	783
Nut. Screw.....	W. Courtenay.....	234,967	Nov. 30	1435	356	18	1253
Nut-tapping machine.....	E. P. McLane.....	227,558	May 11	538	{ 155 156 }	17	1078
Nut warmer and preserver.....	F. A. Bowdoin.....	235,990	Dec. 28	1161	322	18	1498
Nuts. Cleaning and separating.....	B. F. Walters.....	228,703	June 8	638	173	17	1335
Nuts. Die for shaping.....	J. H. Sternbergh.....	226,938	Apr. 27	950	264	17	935
Oar.....	R. McManus.....	230,314	July 20	946	269	18	170
Oar and scull.....	M. F. Davis.....	231,016	Aug. 10	489	138	18	332
Oar-lock.....	J. C. Goodwin.....	235,355	Dec. 14	368	101	18	1350
Oatmeal-machine.....	W. Eberhard.....	224,283	Feb. 10	362	103	17	283
Oatmeal-machine.....	W. Eberhard.....	228,520	June 8	431	118	17	1304
Oatmeal-machine.....	J. F. Fahs, A. C. Bolden, and F. W. Kremer.....	234,010	Nov. 2	233	62, 63	18	1024
Oatmeal-machine.....	W. Heston.....	228,531	June 8	444	121	17	1306
Odometer.....	A. A. Ambler.....	230,981	Aug. 10	452	129	18	327

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & Co.	Vol.	Page.
Offal-drier.	J. F. Gubbins.	230,128	July 20	730	204	18	137
Oil and lard-oil. Treatment of petroleum lubricating.	H. V. P. Draper.	228,181	June 1	23	17	1231	
Oil. Apparatus for extracting.	S. G. Clark.	224,075	Feb. 3	124	36	17	224
Oil. Apparatus for testing lubricating.	C. N. Waite.	226,639	Apr. 20	598	167	17	867
Oil. Apparatus for treating paraffine.	H. Neaheus.	231,840	Aug. 31	1445	406	18	506
Oil-burner.	A. T. Jones.	225,839	Mar. 23	1017	293	17	660
Oil burner. Hydrocarbon.	E. Kells.	231,674	Aug. 31	1247	351	18	475
Oil burner. Petroleum.	D. E. Bangs.	227,472	May 11	449	129	17	1062
Oil by electricity. Apparatus for testing.	F. S. Pease.	226,187	Apr. 6	47	12	17	754
Oil-cake. Envelope for the manufacture of.	C. S. Brittain and H. King.	234,135	Feb. 3	187	53, 54	17	234
Oil-cau.	T. Earle.	230,760	Aug. 3	187	54	18	277
Oil-can.	C. F. Heath.	225,825	Mar. 23	1006	289	17	658
Oil-can.	S. S. Newton.	223,377	Jan. 6	191	50	17	35
Oil-can.	P. Wall.	231,634	Aug. 24	1188	333	18	459
Oil can or keg.	W. Wilson, Jr.	234,363	Nov. 9	649	176	18	1103
Oil-can spout.	D. N. Smith, A. M. Seymour, and J. B. Raynor.	228,132	May 25	1218	347	17	1207
Oil-can top.	J. R. Bennett.	228,625	May 25	1105	315	17	1188
Oil-cloth. Metal corner for.	R. Hubbell.	224,435	Feb. 10	534	154	17	311
Oil condensing and separating apparatus. Coal.	J. H. and W. F. Nicolai.	224,037	Feb. 3	73	22	17	216
Oil-cup.	D. H. Seymour and H. R. A. Boys.	232,306	Sept. 14	513	143	18	618
Oil drip-cup.	H. Kessler and C. Nimmo.	233,519	Oct. 19	903	249	18	902
Oil from metal chips. Mechanism for extracting.	C. F. Roper.	225,949	Mar. 30	1169	332	17	698
Oil from petroleum acid residues. Paint.	A. G. Shade and G. H. Moore.	230,898	Aug. 10	363	18	313	
Oil-press mat.	W. S. Archer and H. L. Pope.	227,670	May 18	675	192	17	1110
Oil. Refining cocoonut.	A. P. Ashbourne.	230,518	July 27	1222	18	222	
Oil-reservoir. Underground.	J. C. McKenzie.	231,924	Sept. 7	54	13	18	533
Oil-tank.	W. H. Birge.	234,745	Nov. 23	1155	311	18	1201
Oil-tank.	E. E. Hendrick.	234,186	Nov. 9	442	120	18	1068
Oil-tank. Storage.	C. Kennedy.	234,678	Nov. 23	1082	291	18	1189
Oil-vapor. Apparatus for fractionally condensing.	H. Frasch.	231,420	Aug. 24	952	269	18	422
Oil. Coating the interior of vessels for holding.	D. F. Bowker.	228,028	May 25	1107	17	1188	
Oils to buildings. Apparatus for supplying hydro-carbon.	J. S. Hall.	229,316	June 29	1396	382	17	1469
Oiler.	T. C. Chalk.	234,959	Nov. 30	1426	383	18	1252
Oiler and oil-bottle. Combined.	R. Ritter.	224,041	Feb. 3	77	23	17	216
Oiler. Car-axle.	W. H. and F. C. Burden.	226,710	Apr. 20	672	187	17	880
Oiler. Car-axle-box.	J. D. Merritt.	236,057	Dec. 28	1238	342	18	1510
Oiler-nozzle.	S. S. Newton.	233,005	Oct. 5	248	68	18	779
Oiling-can.	J. E. Bard.	230,167	July 20	774	216	18	143
Oiling device.	C. A. Luther.	231,182	Aug. 17	690	194	18	372
Oiling steam-valves. Device for.	G. W. Baker.	225,912	Mar. 30	1108	316	17	689
Ointment.	J. A. Thomas and F. E. Kimbley.	230,678	Aug. 3	100	18	262	
Onyx from agate. Fabrication of.	C. P. Cullmann and C. A. Lorenz.	230,753	Aug. 3	181	18	276	
Open-hearth furnace.	W. L. McNair.	229,443	June 29	1541	424 } 425	17	1489
Optical instrument.	E. J. Molera and J. C. Cebrian.	230,322	July 20	955	271	18	171
Optometer.	A. Mayer.	234,598	Nov. 16	970	258	18	1165
Ordnance. Breech-loading.	M. Celoney.	225,461	Mar. 16	574	166	17	575
Ordnance. Breech-loading.	S. M. Richardson.	233,115	Oct. 12	398	109	18	810
Ordnance-lock.	J. B. Davis.	233,142	Oct. 12	431	119	18	816
Ordnance-primer.	J. B. Davis.	233,143	Oct. 12	433	119	18	816
Ore and coal conveyer.	J. B. Reynolds.	230,056	July 13	630	175 } 176	18	111
Ore-concentrating pan.	E. W. Lyon.	229,263	June 29	1324	365	17	1460
Ore-contentrator.	R. E. and C. E. Ball.	229,079	June 22	1130	307	17	1424
Ore-concentrator.	L. M. Kellogg.	231,330	Aug. 17	851	239	18	398
Ore-concentrator.	J. McColl.	228,915	June 15	932	253	17	1386
Ore concentrator and amalgamator. Combined.	C. E. Ball.	229,077	June 22	1126	306	17	1423
Ore-crusher.	E. S. and H. H. Blake.	230,524	July 27	1227	346	18	223
Ore-crusher.	P. C. Du Bois.	223,281	Jan. 6	88	22	17	17
Ore-crusher.	T. R. Timby.	225,665	Mar. 16	801	234	17	616
Ore crusher and pulverizer.	J. T. Davis.	229,387	June 29	1483	408	17	1480
Ore crusher and pulverizer. Combined.	G. F. E. Brinckmann.	233,139	Oct. 12	428	118	18	815
Ore-crusher frame.	E. S. and H. H. Blake.	232,669	Sept. 28	958	262	18	704
Ore-crushing machine.	E. S. and H. H. Blake.	226,964	Apr. 27	978	273	17	940
Ore-desulphurizing apparatus.	R. P. Wilson.	226,692	Apr. 20	654	182	17	876
Ore-feeder.	D. J. O'Harra and D. Feit.	224,946	Feb. 24	1140	326	17	437
Ore-feeder.	J. Hendy.	235,872	Dec. 28	1013	280	18	1473
Ore-feeder.	H. M. Ransom.	225,023	Mar. 2	47	14	17	464
Ore-flume and riffle-box. Combined.	W. B. Farwell.	235,944	Dec. 28	1104	306	18	1488
Ore furnace and reducer.	J. Bujac.	234,170	Nov. 9	422	115	18	1065
Ore-grinding apparatus.	T. Luce.	235,158	Dec. 7	117	33	18	1301
Ore-grinding mill.	R. C. Grant.	234,027	Nov. 2	251	68	18	1027
Ore-grinding mill.	A. B. Paul.	232,364	Sept. 21	597	164	18	637
Ore-grinding mill.	J. H. L. Tuck.	233,383	Oct. 19	743	203	18	876
Ore-leacher.	R. Schulder and E. H. Russell.	234,073	Nov. 2	299	83	18	1036
Ore roasting and reducing furnace.	J. H. Morton.	232,537	Sept. 21	800	222	18	671
Ore-roasting furnace.	H. Herrenschmidt.	223,850	Jan. 27	785	209	17	165
Ore-roasting furnace.	W. C. Munroe.	227,818	May 18	840	238	17	1135
Ore-roasting furnace.	J. J. Napier and J. M. Thompson.	234,798	Nov. 23	1220	329 } 330	18	1211
Ore-roasting furnace. Rotary.	J. K. Pardee.	235,800	Dec. 21	906	253	18	1448
Ore-separating apparatus.	W. L. Inlay.	228,719	June 8	673	186	17	1341
Ore-separator.	O. Currier.	233,661	Oct. 26	1090	303	18	943
Ore-separator.	E. B. Hastings.	236,023	Dec. 28	1198	331	18	1503
Ore-separator.	H. Hochstrate.	235,770	Dec. 21	869	243	18	1441
Ore-separator.	W. Hooper.	235,241	Dec. 7	216	59	18	1316
Ore-separator.	R. H. Sanders.	230,500	July 27	1205	339	18	219
Ore-separator.	J. B. Wilford.	226,258	Apr. 6	127	36	17	768
Ore separator. Dry.	W. O. Bourne.	235,851	Dec. 28	992	275	18	1470
Ore-separator. Magnetic.	T. A. Edison.	228,329	June 1	197	55	17	1259
Ore-washer.	W. C. Shaw.	227,309	May 4	248	72	17	1019
Ore-washer.	S. P. Spicers.	229,281	June 29	1348	370	17	1463

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette	
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Oro washer. Dry.....	J. Wangaman.....	234,826	Nov. 23	1256	338	18	1218
Ore washing and concentrating machine.....	F. J. Seymour.....	228,125	May 25	1211	345	17	1206
Ore-washing machine.....	F. J. Seymour.....	227,589	May 11	575	164	17	1083
Ore-washing machine. Dry.....	A. M. Dennen, W. C. Du Bois, C. C. Gee, and F. C. Pettigrove.....	234,255	Nov. 9	524	144 } 145 }	18	1082
Ores. Desulphurizing.....	H. F. Williams.....	229,509	June 29	1624	.....	17	1500
Ores. Extracting precious metals from.....	T. C. Clark.....	229,586	July 6	93	.....	18	23
Ores. Leaching.....	D. W. Brunton.....	228,032	May 25	1110	316	17	1159
Ores, &c. Mill for grinding.....	M. C. and J. M. Davis.....	233,401	Oct. 19	768	211	18	880
Ores. Process and apparatus for reducing.....	L. Stevens.....	229,060	June 22	1106	300 } 301 }	17	1420
Organ-action.....	F. A. Mehmel.....	224,457	Feb. 10	558	160	17	314
Organ-action. Pneumatic.....	O. H. Needham.....	227,042	Apr. 27	1078	298	17	956
Organ-bellows.....	L. K. Fuller.....	228,053	May 25	1133	322	17	1193
Organ music-desk.....	T. F. Scanlan.....	230,897	Aug. 10	363	105	18	313
Organ-pedal.....	H. R. Moore.....	225,855	Mar. 23	1032	297	17	663
Organ. Reed.....	O. W. Bartlett.....	227,343	May 11	304	89	17	1039
Organ. Reed.....	J. C. Briggs.....	229,369	June 29	1463	403	17	1478
Organ. Reed.....	G. L. Groat.....	229,005	July 6	113	30	18	25
Organ-valves. Spring for.....	J. C. Briggs.....	229,370	June 29	1465	403	17	1478
Organs. Expression-indicator for reed.....	J. Fea.....	235,420	Dec. 14	442	125 } 126 }	18	1363
Ornamentation of electroplated and other goods. Colored.....	W. H. and G. Wilkinson.....	228,150	May 25	1240	.....	17	1210
Oscillating engine.....	J. F. Kingsley.....	224,093	Feb. 3	146	41	17	227
Oscillating engine.....	A. B. Wood.....	230,515	July 27	1219	343 } 344 }	18	221
Oven.....	H. McConnell.....	232,897	Oct. 5	122	32	18	758
Oven. Baker's.....	G. Brake.....	233,469	Oct. 19	845	233	18	892
Oven. Baker's.....	S. Hall.....	232,264	Sept. 14	467	129	18	610
Oven. Baker's.....	T. Hunter.....	232,184	Sept. 14	370	102 } 103 }	18	593
Oven. Baker's.....	S. Lord.....	229,539	July 6	39	10	18	14
Oven grate or shelf.....	F. E. Avery.....	231,141	Aug. 17	632	179	18	363
Oven. Hot-blast.....	H. L. Brooke.....	231,265	Aug. 17	784	219	18	387
Oven indicator. Baker's.....	C. Plocher.....	227,650	May 18	652	185	17	1106
Oven. Portable.....	D. Mac Alpin.....	231,068	Aug. 10	543	153	18	342
Oven. Regenerative hot-blast.....	J. M. Hartman.....	227,430	May 11	400	117	17	1033
Oven-slide.....	L. A. Weiner.....	224,255	Feb. 3	317	92	17	256
Oven. Smelting.....	R. P. Wilson.....	228,793	June 15	796	217	17	1368
Ovens. Pan-rest for.....	G. F. Filley and E. Boileau.....	228,620	June 8	556	147	17	1322
Overalls.....	A. Clement.....	234,391	Nov. 16	707	190	18	1120
Overalls.....	G. P. Evans.....	236,012	Dec. 28	1187	328	18	1502
Overalls.....	J. B. Glover.....	224,175	Feb. 3	232	68	17	242
Overalls.....	S. R. Krouse.....	227,981	May 25	1057	301	17	1181
Overalls.....	A. C. Spencer.....	235,587	Dec. 14	653	185	18	1398
Overalls.....	L. H. Wise.....	234,512	Nov. 16	848	226	18	1144
Overshoe.....	J. E. Earle.....	227,225	May 4	164	48	17	1004
Overshoe. Rubber.....	T. J. Mayall.....	228,769	June 15	760	209	17	1363
Ox-bow fastener.....	H. Wojan.....	227,399	May 11	365	107	17	1048
Oxshoe.....	A. Sanford.....	231,105	Aug. 10	588	167	18	350
Oxides to the metallic state. Process of and furnace for reducing.....	T. Sonthan.....	233,568	Oct. 19	959	265	18	912
Oyster-float.....	T. McCosker.....	232,740	Sept. 28	1034	283	18	718
Oyster-tongs.....	W. L. Messick.....	225,155	Mar. 2	198	56	17	490
Oysters. Canning.....	J. T. Maybury.....	230,561	July 27	1268	.....	18	230
Oysters. Float for fattening.....	L. J. Stewart.....	227,855	May 18	881	251	17	1142
Package-box.....	G. C. Wenzel.....	225,189	Mar. 2	232	65	17	496
Package-holder.....	J. Voos.....	231,973	Sept. 7	129	32	18	545
Package making and filling machine.....	H. E. Smyser.....	227,185	May 4	110	32 } 33 }	17	996
Package. Tight.....	J. Naylor, Jr.....	232,839	Oct. 5	55	16	18	747
Package-wrapping machine.....	I. M. O'Donel.....	231,444	Aug. 24	977	275 } 276 }	18	426
Packages. Apparatus for expelling substances from.....	W. H. Macy, Jr.....	223,743	Jan. 20	644	173	17	132
Packer for oil-wells. Water.....	J. H. Williams.....	234,102	Nov. 2	330	91	18	1041
Packer for well-tubing joints. Clasp.....	B. F. Walker.....	234,825	Nov. 23	1255	338	18	1217
Packer. Oil-well.....	H. H. Doubleday.....	232,013	Sept. 7	168	43	18	551
Packer. Oil-well.....	L. Stewart.....	230,080	July 13	655	183	18	116
Packer. Oil-well.....	L. Stewart.....	235,972	Dec. 28	1140	316	18	1494
Packing-band.....	J. Z. Gifford.....	232,704	Sept. 28	993	273	18	711
Packing box or case.....	L. Racouillat.....	234,725	Nov. 23	1130	304	18	1197
Packing-box. Folding.....	J. H. Keating.....	233,355	Oct. 19	711	194	18	870
Packing-case. Folding.....	W. H. Yaxley.....	234,450	Nov. 16	777	208 } 209 }	18	1132
Packing for Artesian wells.....	S. R. Dresser.....	227,419	May 11	385	113	17	1051
Packing for engines, &c.....	J. C. Febiger, Jr.....	232,955	Oct. 5	191	.....	18	769
Packing for fountains. Piston or plunger.....	J. Hegarty.....	227,526	May 11	505	145	17	1072
Packing for gas engines and pipes.....	J. Pintsch.....	233,370	Oct. 19	729	199	18	873
Packing for oil and other wells.....	J. K. Robinson and D. A. Strong.....	232,209	Sept. 14	398	111	18	598
Packing for piston-rods, &c. Metallic.....	L. Katzenstein.....	228,200	June 1	44	14	17	1234
Packing for piston-rods. Metallic.....	J. A. Osgood.....	226,621	Apr. 20	579	162	17	865
Packing for piston-rods. Metallic.....	T. Tripp.....	225,307	Mar. 9	393	115	17	535
Packing for steam-engines. Spring.....	J. W. Smith.....	228,225	June 1	75	22	17	1239
Packing for steam or water pipes.....	J. W. Cameron.....	226,387	Apr. 13	272	81	17	806
Packing. Hydraulic piston.....	G. Johnson.....	224,695	Feb. 17	836	238	17	372
Packing. Metallic.....	J. A. Osgood and E. P. Monroe.....	234,327	Nov. 9	609	166	18	1036
Packing. Metallic.....	T. Tripp.....	236,116	Dec. 28	1311	361	18	1522
Packing. Metallic.....	T. Tripp.....	236,117	Dec. 28	1313	361	18	1522
Packing. Metallic piston-rod.....	G. B. Brayton.....	235,733	Dec. 21	830	232	18	1434
Packing. Metallic steam.....	W. P. and C. H. Woodruff.....	226,644	Apr. 20	603	168	17	868
Packing. Piston.....	S. M. Brown.....	235,736	Dec. 21	833	233	18	1433
Packing. Piston.....	R. Childs.....	224,815	Feb. 24	1001	283	17	415

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Packing. Piston.....	J. Parker and A. McDonald .....	233,430	Oct. 19	802	221	18	886
Packing. Piston.....	J. Seeberger .....	231,196	Aug. 17	706	199	18	375
Packing. Piston.....	G. E. Smith .....	231,198	Aug. 17	709	199	18	375
Packing. Piston.....	S. S. Sprague .....	230,206	July 20	821	232	18	151
Packing. Piston.....	W. W. St. John .....	234,819	Nov. 23	1248	336	18	1216
Packing. Piston.....	F. B. Stevens .....	235,971	Dec. 28	1139	316	18	1494
Packing. Piston.....	W. M. Thompson, Jr. ....	228,420	June 1	287	81	17	1273
Packing. Piston.....	T. Tripp .....	225,308	Mar. 9	395	115	17	535
Packing. Piston.....	B. Williams and J. S. Matthews ..	235,843	Dec. 21	960	267	18	1457
Packing. Piston-rod .....	S. Armstrong .....	230,986	Aug. 10	458	131	18	328
Packing. Piston-rod .....	A. R. Bailey and J. B. Glass ..	230,220	July 20	837	236	18	153
Packing. Piston-rod .....	J. M. Bowers .....	226,832	Apr. 27	818	228	17	915
Packing. Piston-rod .....	R. B. H. Gould .....	228,341	June 1	208	58	17	1260
Packing. Piston-rod .....	C. C. Jerome .....	230,133	July 20	737	206	18	138
Packing. Piston-rod .....	G. E. Mitchell .....	230,317	July 20	949	270	18	170
Packing. Piston-rod .....	R. Shearer .....	226,558	Apr. 13	482	135	17	838
Packing-ring for boiler-tubes.....	J. S. Affleck .....	229,070	June 22	1118	304	17	1422
Packing. Sectional steam.....	G. C. Phillips .....	235,894	Dec. 28	1040	287	18	1478
Packing. Steam.....	A. Dudgeon .....	232,011	Sept. 7	166	43	18	551
Packing. Steam.....	W. P. and C. H. Woodruff.....	230,978	Aug. 10	447	128	18	326
Packing. Steam piston.....	W. W. St. John .....	228,571	June 8	497	133	17	1314
Packing. Stuffing-box.....	G. J. Payton .....	232,542	Sept. 21	806	223	18	673
Packing. Valve-stem.....	C. C. Jerome .....	230,132	July 20	736	206	18	138
Pad:							
See Blotting-pad. Horse-hoof pad.							
Carpet-pad. Horse safety-pad.							
Coach-pad. Horseshoe-pad.							
Coach or harness pad. Inhaling-pad.							
Collar-pad. Toilet-pad.							
Collar sweat-pad. Truss-pad.							
Harness air-pad.							
Paddle for boat-wheels.....	J. L. Cheston .....	226,567	Mar. 16	696	204	17	597
Paddle-wheel.....	W. P. Hale .....	226,999	Apr. 27	1023	283	17	947
Paddle-wheel.....	J. Sherry .....	225,493	Mar. 16	609	176	17	581
Paddle-wheel.....	T. G. Stritter .....	233,045	Oct. 5	300	83	18	787
Paddle-wheel. Feathering.....	T. C. Pratt and H. J. S. Lewis.....	225,999	Mar. 30	1227	347	17	707
Padlock.....	H. H. Daniels .....	235,750	Dec. 21	850	237	18	1437
Padlock.....	J. Loch .....	228,656	June 8	596	159	17	1329
Padlock.....	W. R. McDonald and W. E. McAlister.	228,371	June 1	238	67	17	1265
Padlock.....	F. W. Mix .....	223,528	Jan. 13	393	105	17	82
Padlock.....	F. W. Mix .....	225,406	Mar. 9	505	146	17	553
Padlock.....	C. Pease .....	229,332	June 29	1418	388	17	1472
Padlock.....	J. W. Reinhart .....	230,055	July 13	628	175	18	111
Padlock. Permutation.....	C. C. Cook and J. N. Green.....	226,599	Apr. 20	547	153	17	860
Padlock. Permutation.....	J. W. Estes and W. H. Buckley.....	228,619	June 8	555	147	17	1322
Padlock. Permutation.....	F. G. Farnham .....	235,862	Dec. 28	1001	277	18	1472
Padlock. Permutation.....	G. M. Hathaway .....	226,069	Mar. 30	1306	369	17	719
Padlock. Permutation.....	H. Wagner .....	233,581	Oct. 19	973	268	18	914
Padlock. Permutation.....	H. F. Webb .....	229,782	July 6	313	87	18	54
Paging and numbering machine.....	W. Robinson .....	230,198	July 20	809	229 } 230 }	18	149
Pail. Dinner.....	T. A. Lott .....	227,369	May 11	332	98	17	1043
Pail or tub cover.....	E. Rice .....	226,111	Mar. 30	1355	381	17	727
Pail. Water.....	F. W. Parsons .....	235,564	Dec. 14	627	179	18	1394
Paint.....	W. H. Hoopes .....	231,960	Sept. 7	111	28	18	541
Paint and varnish. Compound for removing.....	W. H. Nordaby .....	224,841	Feb. 24	1029	.....	17	418
Paint. Asphaltum.....	A. K. Lee .....	235,365	Dec. 14	378	.....	18	1352
Paint, &c., can.....	S. Bergstresser .....	226,266	Apr. 6	134	38	17	770
Paint-can.....	J. G. Carter .....	235,207	Dec. 7	182	49	18	1311
Paint-can.....	F. W. Devoe .....	226,986	Apr. 27	1007	280	17	945
Paint-cans. Machine for filling.....	W. M. Shoemaker .....	234,434	Nov. 16	750	204	18	1129
Paint composition.....	G. Rossi .....	229,473	June 29	1582	.....	17	1495
Paint. Distemper.....	C. G. Dodge, Jr. ....	223,895	Jan. 27	841	.....	17	174
Paint-mill.....	W. Daniels .....	229,973	July 13	537	149	18	97
Paints, &c. Metallic package for.....	J. W. Masury .....	226,180	Apr. 6	39	10	17	753
Paints. Vehicle for.....	F. Thies .....	226,372	Apr. 6	247	.....	17	791
Painter's stand. Carriage.....	J. H. Frey .....	225,926	Mar. 30	1131	322	17	692
Painting pottery.....	T. J. Wheatley .....	232,791	Sept. 28	1102	.....	18	729
Palette. Painter's.....	E. A. Pope .....	230,894	Aug. 10	359	103	18	313
Pamphlet-box.....	T. L. Clacher .....	226,717	Apr. 20	678	189	17	881
Pamphlet-trimmer.....	J. F. Withey .....	228,795	June 15	798	218	17	1368
Pan:							
See Ash-pan. Earthenware sauce-pan.							
Bake-pan. Evaporating-pan.							
Baking-pan. Locomotive ash-pan.							
Bed-pan. Ore-concentrating pan.							
Drip-pan. Sheet-metal pan.							
Dust-pan.							
Pantaloons-garment.....	G. Schilling and S. Florsheim.....	224,559	Feb. 17	678	193	17	345
Pantaloons.....	W. F. Borzell .....	226,966	Apr. 27	982	273	17	941
Pantaloons.....	F. H. Carney .....	228,246	June 1	103	31	17	1243
Pantaloons.....	J. W. Lingard .....	225,399	Mar. 9	498	144	17	552
Pantaloons.....	H. Lowenberg .....	232,196	Sept. 14	380	196	18	594
Pantaloons.....	H. Stix .....	231,735	Aug. 31	1321	372	18	486
Pantaloons and overalls.....	J. Mandel .....	235,888	Dec. 28	1034	285	18	1476
Pantaloons-brace.....	C. Laffite .....	230,289	July 20	921	262	18	166
Pantaloons-elevator.....	C. R. Plympton .....	234,427	Nov. 16	751	202	18	1128
Pantaloons-hanger.....	S. Wheelwright .....	230,513	July 27	1216	343	18	221
Pantaloons-holder.....	J. F. and T. Reinhardt.....	223,681	Jan. 20	581	156	17	121
Pantaloons-protector.....	A. A. Campbell .....	229,031	June 22	1075	293	17	1416
Pantaloons-protector.....	B. C. Wilson .....	224,369	Feb. 10	460	132	17	299
Pantographs. Pencil attachment for.....	J. T. Gregory .....	228,062	May 25	1146	326	17	1195



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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. 15.	Vol.	Page.
Paper and cloth. Coating.....	A. Sackett.....	226,459	Apr. 13	363	104	17	819
Paper and cloth. Coating.....	A. Sackett.....	231,450	Aug. 24	957	278	18	428
Paper and cloth, &c. Manufacture of transparent or other	A. McCaw, J. Stevenson, and J. P. Orr.	233,787	Oct. 26	1224	340	18	967
Paper and method of preparing the same. Safety....	Z. Fortier and C. H. Wyman.....	227,559	May 11	540	156	17	1078
Paper and paper-board. Machine and process for enameling, coating, and calendering	C. H. Van Benthuyssen and A. Bott.	230,366	July 20	1008	286	18	181
Paper and pasteboard. Method and apparatus for manufacturing	N. Kaiser.....	223,918	Jan. 27	872	232	17	178
Paper and process of making the same.....	H. Hayward.....	226,660	Apr. 20	620	173	17	871
Paper bag.....	D. Appel.....	234,837	Nov. 23	1269	341	18	1220
Paper bag.....	D. Appel.....	234,838	Nov. 23	1271	341	18	1220
Paper bag.....	D. Appel.....	234,839	Nov. 23	1272	342	18	1220
Paper bag.....	D. Appel.....	234,840	Nov. 23	1273	342	18	1221
Paper bag.....	J. Bower.....	232,930	Oct. 5	162	43	18	764
Paper bag.....	A. C. Campbell.....	227,147	May 4	74	20	17	990
Paper bag.....	F. W. Kroeber.....	231,056	Aug. 10	530	149	18	339
Paper bag.....	J. McCullough.....	224,934	Feb. 24	1128	322	17	434
Paper bag.....	W. Patterson.....	226,456	Apr. 13	359	103	17	819
Paper-bag machine.....	C. F. Annan.....	233,591	Oct. 26	1006	280 281 339	18	929
Paper-bag machine.....	D. Appel.....	231,642	Aug. 31	1210	340 341	18	469
Paper-bag machine.....	E. O. Bennett.....	225,322	Mar. 9	415	120	17	538
Paper-bag machine.....	C. A. Chandler.....	228,312	June 1	180	50, 51	17	1256
Paper-bag machine.....	W. C. Cross.....	225,509	Mar. 16	630	184	17	585
Paper-bag machine.....	W. C. Cross.....	229,970	July 13	534	148	18	97
Paper-bag machine.....	W. C. Cross.....	232,945	Oct. 5	180	48	18	768
Paper-bag machine.....	W. C. Cross.....	232,946	Oct. 5	182	49	18	768
Paper-bag machine.....	W. C. Cross.....	232,947	Oct. 5	184	49	18	768
Paper-bag machine.....	E. Dangoise.....	226,287	Apr. 6	156	44 45 46	17	774
Paper-bag machine.....	O. E. Davidson.....	234,544	Nov. 16	885	236 237	18	1151
Paper-bag machine.....	S. and M. Ruthenburg.....	226,423	Apr. 13	317	92	17	813
Paper-bag machine.....	E. Stanley.....	225,887	Mar. 23	1069	305	17	669
Paper-bag machine.....	E. B. Stocking.....	223,960	Jan. 27	919	245 246	17	186
Paper-bag machine.....	E. B. Stocking.....	223,961	Jan. 27	921	246 247	17	186
Paper-bag machine.....	E. B. Stocking.....	226,127	Mar. 30	1371	386 387	17	730
Paper bag. Satchel-bottom.....	E. B. Stocking.....	223,959	Jan. 27	917	245	17	186
Paper bags. Machinery for making first folds of satchel-bottom	S. E. Pettie.....	225,163	Mar. 2	205	58	17	492
Paper bags. Manufacture of.....	M. L. Deering.....	227,350	May 11	314	91	17	1040
Paper. Blank music.....	H. L. Hastings.....	225,596	Mar. 16	724	213	17	603
Paper box.....	C. M. Arthur.....	234,221	Nov. 9	490	134	18	1076
Paper box.....	F. Knobloch.....	225,013	Mar. 2	35	10	17	463
Paper box.....	H. S. Munson.....	226,872	Apr. 27	872	242 243	17	923
Paper box.....	H. S. Munson.....	227,916	May 25	975	279	17	1168
Paper box.....	J. B. Parker.....	225,414	Mar. 9	513	148	17	555
Paper-box machine.....	G. Boyce.....	225,915	Mar. 30	1112	317 318	17	690
Paper-box machine.....	F. H. Strieby.....	223,406	Jan. 6	221	59	17	41
Paper box. Wood-lined.....	J. W. Sprowles.....	224,052	Feb. 3	94	28	17	219
Paper boxes. Forming the bending-lines in.....	J. E. Stannard.....	235,821	Dec. 21	929	259	18	1452
Paper boxes. Making.....	M. F. Wilson.....	227,143	May 4	69	19	17	989
Paper boxes. Manufacture of.....	F. R. Duck.....	229,524	July 6	19	4	18	11
Paper boxes. Manufacture of.....	C. P. Housum.....	235,682	Dec. 21	765	217	18	1424
Paper boxes while drying. Clamp for holding	C. E. Bolton.....	230,855	Aug. 10	314	92	18	306
Paper bucket.....	O. H. Hicks.....	231,910	Sept. 7	38	8, 9	18	530
Paper-cabinet.....	E. A. Gilson.....	224,010	Feb. 3	44	13, 14	17	211
Paper cap.....	A. Botsford.....	232,332	Sept. 21	554	153	18	631
Paper collar.....	A. Shedlock.....	231,453	Aug. 24	989	278	18	428
Paper. Converting straw into bleached.....	J. Kauffmann.....	229,254	June 29	1317	.....	17	1459
Paper cop-tube.....	W. J. McCausland.....	227,281	May 4	218	64	17	1014
Paper-cutter.....	E. Leger.....	225,990	Mar. 30	1214	344	17	705
Paper-cutter.....	J. T. Robinson.....	225,871	Mar. 23	1055	301	17	667
Paper-cutting machine.....	W. Heckert.....	227,356	May 11	320	93, 94	17	1041
Paper-cutting machine.....	J. W. Kent.....	231,813	Aug. 31	1416	399	18	501
Paper-cutting machine.....	J. M. Jones.....	234,409	Nov. 16	730	197	18	1125
Paper-cutting machine.....	A. Malm.....	223,744	Jan. 20	645	173	17	132
Paper-cutting machine.....	A. Malm.....	227,803	May 18	826	234	17	1133
Paper-cutting machine.....	E. R. Sheridan.....	227,999	May 25	1082	307 308	17	1184
Paper-cutting machine.....	G. W. Smith.....	228,686	June 8	622	168	17	1333
Paper-cutting machine.....	G. W. Smith.....	231,857	Aug. 31	1471	413	18	510
Paper-cutting machine.....	C. Spring.....	233,121	Oct. 12	406	112	18	811
Paper. Cylinder-machine for making.....	J. H. Henry.....	232,031	Sept. 7	189	51	18	555
Paper-damping machine.....	W. Scott.....	225,491	Mar. 16	606	176	17	581
Paper-drier.....	C. F. Annan.....	233,590	Oct. 26	1005	279	18	929
Paper-drying machine.....	G. F. Speer.....	235,566	Dec. 14	652	185	18	1397
Paper-drying machines. Turn-round for.....	J. Woldron.....	234,359	Nov. 9	644	175	18	1103
Paper-feeding machine.....	F. Ecaubert.....	225,974	Mar. 30	1195	339 340	17	702
Paper-feeding machine.....	F. W. Griffith and G. P. Byrne.....	234,469	Nov. 16	800	215	18	1137
Paper-feeding machine.....	F. H. Lauten.....	223,742	Jan. 20	642	172 173	17	131
Paper-filtering stones, &c. Machine for making.....	B. Klary.....	230,287	July 20	919	261	18	165
Paper floor-covering. Compound.....	H. Hayward.....	228,194	June 1	39	.....	17	1233

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Paper-folding machine .....	C. Chambers, Jr., and W. Mendham .....	225,506	Mar. 16	623	{ 182 183 }	{ 17	584
Paper-folding machine .....	G. E. Jones .....	229,419	June 29	1515	418	17	1485
Paper-folding machine .....	W. Scott .....	231,853	Aug. 31	1465	{ 411 412 }	{ 18	509
Paper-folding machine .....	W. Spalckhaver .....	223,457	Jan. 13	307	{ 81 82 83 86 26 27 28 }	{ 17	68
Paper-folding machine .....	W. Spalckhaver .....	224,051	Feb. 3	90	27	17	218
Paper for bank notes, checks, &c. ....	J. Sangster .....	228,221	June 1	71	21	17	1239
Paper for beaming woven fabrics. Preparing .....	J. Orelle, Ainé, and F. Pichon .....	227,381	May 11	350	102	17	1045
Paper for detective purposes. Treating .....	N. J. Heckmann .....	225,282	Mar. 9	366	.....	17	530
Paper for packing, lining, &c. ....	M. Newton .....	235,449	Dec. 14	483	136	18	1370
Paper for producing copies. Duplicate .....	J. E. Jefferies .....	231,672	Aug. 31	1245	.....	18	475
Paper, &c., for wrapping silver and other metals to prevent them from tarnishing. Preparing .....	J. C. Pennington .....	223,814	Jan. 27	747	.....	17	158
Paper-fringing machine .....	S. Garrett .....	228,750	June 15	734	202	17	1359
Paper-fringing machine .....	S. Garrett .....	234,399	Nov. 16	717	{ 193 194 }	{ 18	1123
Paper-hanger. Automatic .....	R. R. Pattison .....	225,860	Mar. 23	1039	298	17	664
Paper-hanger's table .....	W. Trilk .....	229,497	June 29	1612	444	17	1498
Paper-holder .....	L. J. Labounty .....	224,547	Feb. 17	666	190	17	343
Paper. Impervious wrapping .....	R. W. Johnson .....	229,045	June 29	1090	297	17	1418
Paper lock-box .....	G. C. Wenzel .....	228,008	May 25	1092	310	17	1185
Paper-machine .....	W. E. Phelps .....	223,381	Jan. 6	195	52	17	36
Paper. Machine for cutting lace from .....	A. Giraudat .....	229,997	July 13	569	158	18	102
Paper, &c. Machine for folding and cutting .....	G. E. Jones .....	229,420	June 29	1516	{ 418 419 }	{ 17	1485
Paper. Machine for winding dry enameled .....	E. B. Newcomb .....	236,068	Dec. 28	1251	345	18	1512
Paper-machine jacket-stretcher .....	J. Jamison .....	225,609	Mar. 16	743	219	17	606
Paper-machine pulp-screen .....	S. L. Gould .....	234,559	Nov. 16	907	244	18	1154
Paper-machines. Felt-cleaning apparatus for .....	G. Holloway .....	231,579	Aug. 24	1129	316	18	449
Paper-machines. Guide-roller for .....	T. Pusey .....	229,636	July 6	142	40	18	30
Paper-machines. Suction or vacuum box for .....	J. Jordan and C. C. Markle .....	225,141	Mar. 2	185	52	17	488
Paper, &c. Machinery and apparatus for glazing or for coloring and glazing the surface of .....	J. Jeffs .....	231,585	Aug. 24	1137	318	18	450
Paper-makers. Preparing a sizing material used by .....	R. A. Fisher .....	223,442	Jan. 13	290	.....	17	65
Paper-makers' use. Manufacture of a white compound for .....	R. A. Fisher .....	223,443	Jan. 13	291	.....	17	65
Paper-making machines. Dampening device for .....	J. J. Harris .....	231,038	Aug. 10	512	144	18	336
Paper-making machines. Screen-plate for .....	C. Pinder and W. A. Hardy .....	226,545	Apr. 13	468	132	17	836
Paper-making machines. Screen-plate for .....	C. Pinder and W. A. Hardy .....	234,719	Nov. 23	1123	303	18	1196
Paper-making machinery .....	G. Holloway .....	231,169	Aug. 17	673	{ 189 190 }	{ 18	369
Paper. Manufacture of .....	G. B. Fox .....	229,690	July 6	204	.....	18	38
Paper. Manufacture of building or wall .....	E. Thompson .....	225,178	Dec. 7	140	.....	18	1305
Paper. Manufacture of colored .....	H. Gmeiner .....	223,337	Jan. 6	153	39	17	28
Paper. Manufacture of non-inflammable .....	C. H. O'Connor .....	225,858	Mar. 23	1035	.....	17	663
Paper. Manufacture of paneled .....	J. B. Sipe and C. Rogers .....	223,768	Jan. 20	671	180	17	136
Paper. Manufacture of perforated and scalloped .....	L. H. Rogers .....	228,939	June 15	956	260	17	1390
Paper. Manufacture of wood pulp for .....	J. Chase .....	233,070	Oct. 12	340	.....	18	801
Paper. Manufacture of wood pulp for .....	G. F. Wilson and P. O'Reilly .....	227,464	May 11	440	.....	17	1061
Paper. Method of and apparatus for corrugating .....	M. Newton .....	235,698	Dec. 21	789	222	18	1428
Paper or vulcanized fiber applied to corset-stays as a substitute for whalebone, &c. Fabricated .....	A. L. Howard .....	231,045	Aug. 10	520	.....	18	338
Paper-pail .....	F. M. Davis .....	229,678	July 6	189	52	18	36
Paper-pail .....	J. A. Weed .....	220,375	July 20	1018	288	18	162
Paper-pails. Machine for making .....	E. Hubbard .....	226,752	Apr. 20	717	200	17	887
Paper-pasting and folding machine .....	G. A. Goldsmith and W. J. Shedlock .....	231,307	Aug. 17	824	{ 231 232 }	{ 18	394
Paper-perforating machine .....	R. T. Smith .....	233,882	Nov. 2	62	17, 18	18	997
Paper. Preparation of bank-note .....	H. Hayward .....	225,279	Mar. 9	362	106	17	530
Paper-pulp, and process and machine for producing the wood fiber. Wood fiber for .....	P. H. Holmes .....	228,899	June 15	913	249	17	1384
Paper-pulp. Apparatus for preparing wood for making .....	W. R. Patrick .....	234,144	Nov. 9	388	106	18	1058
Paper-pulp. Beating-engine for .....	G. Dunn and R. A. Lo Barron .....	233,839	Nov. 2	14	4	18	989
Paper-pulp digesters, &c. Slide-valve gate for .....	J. Saunders .....	234,431	Nov. 16	755	203	18	1129
Paper-pulp engine .....	J. R. Abbe .....	235,844	Dec. 28	985	273	18	1469
Paper-pulp engines. Bed-plate for .....	O. Morse .....	226,098	Mar. 30	1338	377	17	724
Paper-pulp from pine-leaves. Manufacturing .....	C. Fulton .....	224,170	Feb. 3	228	.....	17	241
Paper-pulp from straw, &c. Manufacture of .....	C. O. and H. A. Chapin .....	227,676	May 18	680	.....	17	1110
Paper-pulp from wood. Machine for making .....	R. B. Lane .....	233,105	Oct. 12	386	106	18	808
Paper-pulp from wood. Manufacture of .....	S. M. Allen .....	229,073	June 22	1120	304	17	1422
Paper-pulp from wood, &c. Manufacture of .....	W. E. Farrell .....	223,670	Jan. 20	568	.....	17	119
Paper-pulp from wood. Manufacture of .....	T. F. Hoxsey .....	231,720	Aug. 31	1300	.....	18	483
Paper-pulp from wood. Manufacture of .....	G. D. King .....	225,988	Mar. 30	1212	343	17	705
Paper-pulp machine .....	J. Taylor .....	229,201	June 22	1253	{ 344 345 }	{ 17	1441
Paper-pulp. Machine for cutting wood fiber for .....	T. H. Scott, A. G. De Pontee, and H. E. Wyman .....	234,893	Nov. 30	1343	362	18	1238
Paper-pulp. Machine for making frames or casings for lamps from .....	G. M. Stevens and H. J. Chisholm .....	234,694	Nov. 23	1098	295	18	1192
Paper-pulp. Machine for preparing .....	G. H. Ennis .....	225,976	Mar. 30	1198	340	17	703
Paper-pulp. Machine for preventing waste of .....	A. McDermid .....	230,029	July 13	602	167	18	107
Paper-pulp. Machinery for grinding wood for .....	W. A. Doane .....	224,002	Feb. 3	36	11	17	209
Paper-pulp mold .....	G. F. Spear .....	235,585	Dec. 14	651	184	18	1397
Paper-pulp. Molded articles from .....	J. R. Hertford .....	227,357	May 11	322	94	17	1042
Paper-pulp pail .....	E. Hubbard .....	224,405	Nov. 16	727	196	18	1124
Paper-pulp. Preparing wood for making .....	J. Davy, Jr. .....	229,307	June 29	1387	.....	17	1468
Paper-pulp. Preparing wood for making .....	W. R. Patrick .....	227,646	May 18	647	.....	17	1106
Paper-pulp. Preparing wood for making .....	W. R. Patrick .....	227,647	May 18	648	.....	17	1106

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Paper-pulp. Preparing wood for making	W. R. Patrick	234,142	Nov. 9	387	-----	18	1058
Paper-pulp. Preparing wood for making	W. R. Patrick	234,143	Nov. 9	388	-----	18	1058
Paper-pulp screen	B. F. Warren	223,967	Jan. 27	929	248	17	188
Paper-pulp washer	J. Cornell	235,213	Dec. 7	188	51	18	1312
Paper-pulp, &c. Washer for	G. A. Whiting	232,383	Sept. 21	621	171	18	641
Paper-pulp. Wood-grinder for making	S. M. Allen	224,623	Feb. 17	760	215	17	358
Paper-pulp. Wood-grinder for making	S. M. Allen	226,013	Mar. 30	1243	351	17	710
Paper-pulp. Wood-grinder for making	S. M. Allen	229,513	July 6	1	1	18	9
Paper-pulp. Wood-grinder for making	S. M. Allen	232,431	Sept. 21	680	187	18	651
Paper-pulping engine for the reduction of wood, straw, &c.	W. E. Farrell	225,922	Mar. 30	1124	321	17	692
Paper. Repulping	C. Coon	225,347	Mar. 9	438	-----	17	543
Paper shovel-blade	W. H. Murphy	229,741	July 6	264	74	18	47
Paper, &c. Sizing for	G. Vining	223,459	Jan. 13	312	-----	17	68
Paper-stock from colored rags. Preparation of	G. F. Wilson and P. O'Reilly	227,463	May 11	438	126	17	1060
Paper strip from which to manufacture paper bobbins	D. M. Church	231,536	Aug. 24	1081	303	18	441
Paper trimming and slitting machine	R. Binns	225,046	Mar. 2	86	23	17	470
Paper-trimming machine	W. P. Yeoman	232,221	Sept. 14	412	114	18	600
Paper tubes. Machinery for making	M. Young	229,296	June 29	1368	{ 376 } 377	17	1466
Paper veneer	I. M. Clark	224,388	Feb. 10	480	137	17	302
Paper vessel	G. F. Speer	235,584	Dec. 14	651	184	18	1397
Paper-waxing machine	L. Bastet	229,798	July 13	345	96	18	67
Paper-waxing machine	G. H. Rich	233,282	Oct. 12	593	{ 163 } 164	18	844
Paper waxing or varnishing machine	J. W. Sutton	232,777	Sept. 28	1084	297	18	726
Paper while hanging the same. Machine for holding up ceiling	A. Clemons	230,404	July 27	1090	307	18	200
Papier-maché. Manufacturing articles in imitation of	R. Cunningham	226,497	Apr. 13	407	116	17	826
Paraffine from oil-well tubing. Device for removing	E. A. Van Scoy	232,091	Sept. 7	255	70	18	566
Paraffine wax. Process and apparatus for manufacturing	W. M. Sloane and R. M. Potter	223,549	Jan. 13	416	111	17	86
Paraffine wax. Refining	W. M. Sloane and W. Bell	235,057	Nov. 30	1542	415	18	1272
Parchment or toughening paper. Making artificial	L. H. G. Ehrhardt	228,328	June 1	196	-----	17	1259
Parer and corer. Apple	S. McNew	227,912	May 25	971	278	17	1167
Parer and slicer. Apple	D. H. Whittemore	226,217	Apr. 6	81	21	17	760
Parer. Apple	H. H. and I. A. Hebbard	229,251	June 29	1312	362	17	1458
Parer. Apple	A. Ripplien	233,023	Oct. 5	269	74	18	783
Parer. Apple	R. P. Scott	232,371	Sept. 21	606	166	18	639
Parer. Apple	O. W. Stow	233,044	Oct. 5	299	83	18	787
Parer. Apple	G. R. Thompson	233,955	Nov. 2	149	40	18	1011
Partition. Wooden	F. G. Himpler	223,734	Jan. 20	634	171	17	130
Passenger-elevator	H. M. Lee	226,330	Apr. 6	203	60	17	783
Passenger-register	J. W. Fowler and D. F. Lewis	231,161	Aug. 17	655	186	18	367
Pattern: See Dovetail-pattern. Snug-pattern. Sleeve-pattern.							
Pattern-plates. Making	G. Woolnough	229,294	June 29	1366	375	17	1465
Patterns. Apparatus for drafting	F. J. Kellogg	235,776	Dec. 21	877	245	18	1442
Pavement. Street	A. Bannister	234,376	Nov. 9	664	181	18	1106
Pavements, drain-pipes, &c. Compound for	J. P. Grant	233,502	Oct. 19	879	-----	18	898
Pavements. Laying	A. Pelletier	230,492	July 27	1197	337	18	217
Pavements. Laying concrete	C. Hense	227,898	May 25	957	274	17	1165
Pawl-and-ratchet device	W. C. Farnum	224,524	Feb. 17	640	184	17	339
Pawl-and-ratchet device	E. G. Passmore	233,636	Oct. 26	1060	295	18	933
Pawl-and-ratchet device	E. G. Passmore	233,637	Oct. 26	1062	295	18	938
Pea-sheller	L. Eaton	227,886	May 25	941	{ 269 } 270	17	1163
Peach-stoner	J. K. Hogan	225,378	Mar. 9	471	137	17	548
Peach-stoner	W. R. Sherman	228,949	June 15	966	263	17	1391
Peanut-roaster	W. H. Burk	225,561	Mar. 16	689	202	17	596
Peanut-roaster	T. Lee	226,081	Mar. 30	1320	372	17	721
Peanut-stripper	J. T. Jones	225,613	Mar. 16	747	220	17	606
Peanuts, &c. Apparatus for cleaning and scouring	B. F. Walters	224,810	Feb. 24	996	282	17	412
Pedal motor. Duplex	C. L. Fleischmann	230,411	July 27	1098	309	18	201
Peg and peg-wood	F. F. Raymond, 2d	232,617	Sept. 28	894	247	18	694
Peg-cutter	E. Holmes	225,284	Mar. 9	369	108	17	531
Peg-cutter	E. Holmes	225,285	Mar. 9	370	108	17	531
Peg-float	J. Hancock	224,424	Feb. 10	518	148	17	308
Peg-rasping machinery	W. B. Arnold	225,504	Mar. 16	622	181	17	584
Pegging-machines. Suspending power	E. Woodward and M. Brock	227,944	May 25	1004	288	17	1173
Pelts. Treating	H. A. House and S. D. Castle	233,415	Oct. 19	787	217	18	833
Pen	D. MacKinnon	226,618	Apr. 20	570	159	17	864
Pen	W. T. Rightmyer	223,388	Jan. 6	203	53	17	37
Pen and brush. Combined marking	C. I. Wallis	230,089	July 13	662	185	18	117
Pen. Cattle	J. N. Chew	232,683	Sept. 28	970	267	18	707
Pen-fountain	J. H. Connell	231,403	Aug. 24	933	263	18	419
Pen. Fountain	A. T. Cross	229,305	June 29	1384	380	17	1468
Pen. Fountain	W. B. Greene	227,894	May 25	951	273	17	1165
Pen. Fountain	L. F. Korn	230,706	Aug. 3	130	38	18	268
Pen. Fountain	J. S. Purdy	232,545	Sept. 21	808	233	18	673
Pen. Fountain	H. A. Walke	235,396	Dec. 14	414	116	18	1358
Pen. Hand ruling	A. Dredge	231,703	Aug. 31	1279	360	18	480
Pen-holder	W. H. Sprague	235,656	Dec. 21	737	210	18	1419
Pen-holder. Fountain	J. Monaghan	226,768	Apr. 20	731	204	17	890
Pen-holders. Guido for	M. A. Hoff	234,781	Nov. 23	1199	324	18	1208
Pen. Marking	J. W. Stokes	225,178	Mar. 2	222	62	17	494
Pen. Movable cattle	D. Harrington	223,729	Jan. 20	629	169	17	129
Pen-rack	A. Christey	223,435	Jan. 13	282	75	17	64
Pen-rack	J. B. Perkins	231,969	Sept. 7	119	30	18	543
Pen. Stylographic	A. T. Cross	232,804	Oct. 5	8	3	18	740
Pen. Stylographic	G. F. Hawkes	234,182	Nov. 9	437	118	18	1067
Pen. Stylographic	A. W. Lozier	233,155	Oct. 12	446	123	18	818
Pen. Stylographic fountain	C. Baur	225,914	Mar. 30	1111	317	17	690

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Pen. Stylographic fountain.....	A. T. Cross.....	225,691	Mar. 23	850	247	17	633
Pen. Stylographic fountain.....	A. T. Cross.....	227,416	May 11	381	112	17	1051
Pen. Stylographic fountain.....	F. S. Dellenbaugh.....	229,102	June 23	1152	315	17	1427
Pen. Stylographic fountain.....	C. H. Downes.....	225,810	Mar. 23	991	284	17	656
Pen. Stylographic fountain.....	C. H. Downes.....	232,633	Sept. 23	913	251	18	697
Pen. Stylographic fountain.....	C. H. Downes.....	233,924	Nov. 2	110	30	18	1005
Pen. Stylographic fountain.....	C. H. and C. L. Downes.....	229,980	July 13	545	152	18	99
Pen. Stylographic fountain.....	C. N. Fisher and C. L. Downes.....	224,162	Feb. 3	213	62	17	239
Pen. Stylographic fountain.....	J. C. Haring.....	233,616	Oct. 26	1034	288	18	934
Pen. Stylographic fountain.....	G. F. Hawkes and H. Madeheim.....	223,644	Jan. 20	537	145	17	115
Pen. Stylographic fountain.....	C. W. Livermore.....	225,401	Mar. 9	499	144	17	553
Pen. Stylographic fountain.....	A. W. Lozier.....	233,106	Oct. 12	387	106	18	808
Pen. Stylographic fountain.....	E. B. Nimmo.....	226,924	Apr. 27	935	260	17	933
Pen. Stylographic fountain.....	E. B. Nimmo.....	226,925	Apr. 27	936	260	17	933
Pen. Stylographic fountain.....	F. J. Seybold.....	229,336	June 29	1422	389	17	1472
Pen. Stylographic fountain.....	A. M. Sutherland.....	231,690	Aug. 31	1264	355	18	478
Pen. Stylographic fountain.....	G. Lano.....	235,788	Dec. 21	891	249	18	1445
Pen-wiper.....	T. Willans.....	223,788	Jan. 20	695	187	17	140
Pens. Fountain attachment for writing.....	E. Wiley.....	228,427	June 1	293	.....	17	1274
Pens. Pointing.....	B. A. Fiske.....	226,607	Apr. 20	556	155	17	861
Pencil and crayon holder.....	C. L. Downes.....	225,214	Mar. 9	275	78	17	517
Pencil-case.....	C. H. Downes.....	236,005	Dec. 28	1176	326	18	1500
Pencil-case.....	H. C. Benson.....	235,726	Dec. 21	823	230	18	1433
Pencil-holder.....	C. Sneider.....	235,307	Dec. 7	287	81	18	1329
Pencil-holder. Combination.....	J. E. Faber.....	229,988	July 13	555	154	18	100
Pencil. Lead.....	A. C. Hafely.....	230,772	Aug. 3	201	58	18	279
Pencil-package.....	P. A. Mehling.....	224,458	Feb. 10	559	160	17	314
Pencil-package.....	E. Weissenborn.....	228,961	June 15	978	266	17	1393
Pencil-package.....	F. M. Livingston.....	229,323	June 29	1410	386	17	1471
Pencil-sharpener.....	E. E. Norton.....	228,923	June 15	940	256	17	1388
Pencil-sharpener.....	H. C. Rice.....	230,338	July 20	978	277	18	175
Pencil-sharpener. Slate.....	J. W. Hyatt.....	232,721	Sept. 28	1013	279	18	714
Pencil sharpeners. Machine for making slate.....	F. Rheydt.....	235,815	Dec. 21	921	257	18	1451
Pencil-sharpening guide.....	J. K. Hoyt.....	227,012	Apr. 27	1036	288	17	950
Pencil-sharpening machine.....	H. Van Houser.....	236,119	Dec. 28	1318	362	18	1523
Pencils. Machine for the manufacture of slate.....	J. W. Hyatt.....	232,720	Sept. 28	1012	278	18	713
Pencils. Machine for trimming the ends of lead.....	H. C. Benson.....	229,661	July 6	169	47	18	34
Pendulum. Compensating.....	C. T. Mason.....	230,305	July 20	938	267	18	169
Penmanship-instructing chart.....	J. H. Reed.....	230,817	Aug. 3	251	72	18	288
Percussion-strip.....	H. F. McGill.....	227,560	May 11	541	156	17	1078
Perforating-machine.....	A. Shirlaw.....	231,109	Aug. 10	589	167	18	350
Permutation-lock.....	F. E. Arnold.....	232,914	Oct. 5	146	39	18	762
Permutation-lock.....	J. B. Cook.....	228,316	June 1	184	52	17	1257
Permutation-lock.....	H. W. Covert.....	233,922	Nov. 2	107	29	18	1004
Permutation-lock.....	E. Herbert and O. T. Dougherty.....	231,166	Aug. 17	668	188	18	369
Permutation-lock.....	D. J. Kenny.....	229,820	July 13	380	105	18	72
Permutation-lock.....	C. J. Reno.....	225,490	Mar. 16	605	176	17	581
Permutation-lock.....	E. Stockwell.....	233,950	Nov. 2	142	38	18	1010
Permutation-lock.....	E. Stockwell.....	234,085	Nov. 2	313	86	18	1038
Pessaries from celluloid, &c. Manufacture of.....	G. Otto.....	235,959	Dec. 28	1126	310	18	1491
Petroleum. Burner and apparatus for burning.....	E. Schultz.....	236,095	Dec. 28	1277	352	18	1516
Petroleum distillate for lubricating purposes.....	W. Atwood.....	226,153	Apr. 6	6	.....	17	747
Petroleum-refineries. Process of and apparatus for treating residuum from.....	H. Bower.....	230,171	July 20	778	217	18	144
Petroleum, &c. Refining.....	J. H. Alexander.....	229,297	June 29	1372	377	17	1466
Phonograph.....	T. A. Edison.....	227,679	May 18	683	195	17	1111
Phosphate-rock from the beds of streams and lifting same. Machine for breaking.....	H. B. Van Ness.....	229,213	June 22	1267	348	17	1444
Phosphated nutritive powder.....	S. W. Haley.....	230,415	July 27	1102	.....	18	202
Photo-negative plates. Apparatus for retouching.....	K. T. Pihlgren.....	229,272	June 29	1336	367	17	1461
Photo-negatives. Producing, embellishing, and retouching.....	W. D. Osborne.....	228,380	June 1	250	.....	17	1267
Photo-relief engraving.....	G. C. Bell.....	226,383	Apr. 13	268	.....	17	805
Photograph-burnisher.....	M. W. Jenks.....	226,521	Apr. 13	443	124	17	832
Photographs. Coloring and finishing.....	F. L. Mitchell.....	223,944	Nov. 2	135	.....	18	1009
Photographs on linen. Producing colored.....	L. Graf.....	229,694	July 6	209	.....	18	39
Photographic apparatus.....	T. H. Blair.....	226,022	Mar. 30	1253	354	17	711
Photographic apparatus for reducing to a microscopic scale.....	E. J. Molera and J. C. Cebrian.....	230,324	July 20	959	272 273	18	172
Photographic backgrounds. Accessory for forming.....	W. F. Ashe.....	228,295	June 1	164	45	17	1253
Photographic camera.....	I. H. Stoddard.....	231,506	Aug. 24	1045	293	18	437
Photographic emulsions. Producing.....	H. W. Vogel.....	235,831	Dec. 21	942	.....	18	1455
Photographic images. Producing.....	D. N. Carvalho.....	225,458	Mar. 16	570	.....	17	575
Photographic images. Producing.....	D. N. Carvalho.....	234,171	Nov. 9	424	.....	18	1065
Photographic pictures. Producing.....	W. Kurtz.....	225,478	Mar. 9	595	.....	17	579
Photographic-plate holder.....	B. F. Spilman.....	228,134	May 25	1221	347	17	1207
Photographic printing-frame.....	J. A. Todd.....	230,159	July 20	767	214	18	142
Photographic stand and album.....	L. Dubernet.....	226,445	Apr. 13	347	99	17	817
Photography. Method and apparatus for coating plates for use in "Photophone." Apparatus for signaling and communicating, called.....	G. Eastman.....	226,503	Apr. 13	422	119	17	828
Photophone-transmitter.....	A. G. Bell.....	235,199	Dec. 7	165	47	18	1309
Photophonic transmitter.....	A. G. Bell and S. Tainter.....	235,496	Dec. 14	540	155	18	1380
Phototype-plates. Producing.....	E. Berliner.....	235,120	Dec. 7	67	20	18	1292
Piano-action.....	E. Jacobi.....	225,389	Mar. 9	482	.....	17	550
Piano-action and action-frame.....	E. Westermayer.....	229,066	June 22	1113	302	17	1421
Piano action-frame. Upright.....	C. F. T. Steiaway.....	226,462	Apr. 13	365	105	17	820
Piano and organ indicator.....	G. M. Guild.....	227,624	May 18	621	178	17	1102
Piano-forte.....	D. D. Tracy.....	229,287	June 29	1357	372	17	1464
Piano-forte.....	J. Hardman.....	229,820	July 13	370	102	18	71
Piano-forte.....	A. H. Hastings.....	232,269	Sept. 14	472	131	18	611
Piano-forte.....	T. Howells.....	229,131	June 22	1168	325	17	1432
Piano-forte.....	R. Howson.....	232,970	Oct. 5	212	57	18	773
Piano-forte action.....	H. Ketten.....	234,031	Feb. 3	144	40	17	227

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Piano-forte action	H. Kranich and J. Bach	233,103	Oct. 12	385	105	18	807
Piano-forte action-frame	J. Hardman	235,357	Dec. 14	370	102	18	1350
Piano-forte action-frame. Upright	C. S. Fischer	224,008	Feb. 3	42	13	17	210
Piano-forte agraffe	E. T. Bowlby	225,100	Mar. 2	142	41	17	481
Piano-forte and organ. Combined	J. T. Wright	225,090	Mar. 2	133	39	17	479
Piano-forte bass-pedal	A. Wiesbauer	228,963	June 15	980	266 267	17	1394
Piano-forte-damper attachment	C. Mahling	228,912	June 15	929	252 253	17	1386
Piano-forte hammer	C. F. T. Steinway	231,629	Aug. 24	1184	331	18	458
Piano-forte hammer	C. F. T. Steinway	231,630	Aug. 24	1184	331	18	458
Piano-forte key	J. W. Haines	225,700	Mar. 23	860	251	17	635
Piano-forte key-pedal	T. H. Knollin	225,229	Mar. 9	373	109	17	531
Piano-forte music-desk	H. Praeger	226,676	Apr. 20	636	177	17	873
Piano-forte tuning-pin lock	L. W. Norcross	225,017	Mar. 2	39	12	17	463
Piano-forte. Upright	A. Felldin	232,346	Sept. 21	572	157 158	18	633
Piano-forte. Upright	C. F. T. Steinway	230,354	July 20	996	282	18	178
Piano-fortes. Action-hanger for upright	E. McCammon	235,370	Dec. 14	386	105	18	1353
Piano-fortes. Key-frame bed for	C. F. T. Steinway	232,857	Oct. 5	73	21	18	751
Piano-fortes. Stringing	B. Dreher	228,738	June 15	717	197	17	1357
Piano-lock	F. Egge	230,866	Aug. 10	324	95	18	308
Piano sounding-board bridge	C. F. T. Steinway	233,710	Oct. 26	1145	319	18	952
Piano tuning-pin lock	E. McBride	235,269	Dec. 7	246	68	18	1322
Pick	C. Norton	232,056	Sept. 7	216	59	18	560
Picker:							
<i>See</i> Cotton-picker.	Grape-picker.						
Fruit-picker.	Nail-picker.						
Picker-lag	J. N. Jones	224,545	Feb. 17	664	189	17	343
Picker-staff check	W. E. Sartwell	233,555	Oct. 19	947	260	18	910
Picket-pointing machine	G. N. Thomas	233,896	Nov. 2	80	21	18	1000
Pickle-package	G. O. Sanborn	229,189	June 22	1241	341	17	1440
Picture and other frames. Back for	L. A. Deuther	226,391	Apr. 13	275	82	17	806
Picture-exhibitor	T. Muench	231,343	Aug. 17	865	243 244	18	400
Picture-frame	L. Brower	231,473	Aug. 24	1008	283	18	431
Picture-frame	B. Dreyfuss	232,471	Sept. 21	727	202	18	659
Picture-frame	W. L. Eckman	226,654	Apr. 20	613	171	17	870
Picture-frame	M. Stevens	223,613	Jan. 13	493	133	17	98
Picture-frame attachment	J. W. Larchar	226,762	Apr. 20	726	203	17	888
Picture-hanger	M. W. Marsden	227,279	May 4	216	64	17	1013
Picture-hanger	M. Raughtigan and E. Oldfield	227,055	Apr. 27	1093	302	17	958
Picture-hook	J. T. Haviland	230,701	Aug. 3	121	35	18	266
Picture-nail	E. E. Kraus	231,334	Aug. 17	856	241	18	399
Picture-support	G. H. Brown	228,308	June 1	175	49	17	1255
Pie-making machine	A. D. Hoffman and A. Moody	227,630	May 18	627	179	17	1103
Piers. Drift-wheel for	G. M. Fenley	227,747	May 18	770	217	17	1124
Pigeon-hole bottom	J. E. McNair	230,486	July 27	1192	335	18	217
Pigeon-trap	W. H. Hawes	223,344	Jan. 6	159	41	17	29
Pigeon-trap	H. M. Miller	227,638	May 18	636	182	17	1104
Pigment bases. Manufacturing	G. T. Lewis and E. O. Bartlett	223,932	Jan. 27	889	236	17	181
Pigments from lead sulphurets. Making white	G. T. Lewis	224,549	Feb. 17	668	191	17	343
Pile	L. Kirkup	226,664	Apr. 20	625	174	17	872
Pile. Composite	H. Case	224,646	Feb. 17	784	222	17	362
Pile-driver	J. W. Putnam	229,461	June 29	1565	432	17	1493
Pile-driver	J. W. Putnam	229,462	June 29	1567	432	17	1493
Pile for the manufacture of composite plates	D. Torrey	235,471	Dec. 14	514	148	18	1375
Pile. Iron	I. W. Maclay	226,237	Apr. 6	106	28	17	764
Pile. Iron	I. W. Maclay	228,467	June 8	362	99	17	1294
Pile. Tubular	J. Johnson	225,061	Mar. 2	101	28	17	473
Piles. Apparatus for sinking and removing	H. Case	227,424	May 11	461	132 133	17	1065
Piles. Process and apparatus for sinking	H. Case	223,479	Jan. 13	336	90	17	72
Pill-box	H. S. Maynard	229,543	July 6	46	12	18	15
Pill-machine	J. Thompson	227,320	May 4	262	77	17	1021
Pill-making machine	J. A. Whitney	224,566	Feb. 17	690	196 197	17	347
Pills. Coating	J. P. Nemours	231,236	Aug. 17	755	18	18	382
Pills. Process of and apparatus for coating	J. A. Whitney	229,785	July 6	316	88	18	54
Pills with semi-fluid. Device for coating	H. S. Maynard	229,544	July 6	47	12	18	15
Pillow-sham holder	M. A. Steers	228,414	June 1	282	79	17	1272
Pillow-support	S. Huffman	230,633	Aug. 3	43	13	18	254
Pillows, beds, &c. Material for stuffing	R. Stilwell	231,459	Aug. 24	995	18	18	429
Pilot-wheel shafts. Sheave for	W. McKay	231,071	Aug. 10	545	154	18	342
Pin:							
<i>See</i> Braid-pin.	Hair-pin.						
Breastpin.	Nursery-pin.						
Crank-pin.	Safety-pin.						
Crimping-pin.	Stake-pin.						
Electrical switch-pin.	Wrist-pin.						
Pin-holder	T. J. Pairpoint	233,874	Nov. 2	55	15	18	996
Pipe:							
<i>See</i> Blow-pipe.	Locomotive lift-pipe.						
Drain, gas, and water pipe.	Smoking-pipe.						
Hose-pipe.	Steam-conducting pipe.						
Hydraulic pipe.	Stove-pipe.						
Leader-pipe.	Stove-fume pipe.						
Tobacco-pipe.							
Pipe	J. B. Baker	235,063	Dec. 7	4	1	18	1281
Pipe and hose coupling	L. P. Lawrence	232,279	Sept. 14	482	134	18	613
Pipe and nut wrench	J. C. Stevens	233,893	Nov. 2	77	20	18	999
Pipe-bends. Machine for boring and tapping	T. F. Hammer	231,312	Aug. 17	629	233	18	395
Pipe-clamp for oil-wells, &c	C. Héme	224,532	Feb. 17	647	186	17	340



*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Pipe-cleaner .....	J. H. Gable .....	226,740	Apr. 20	704	195	17	885
Pipe. Collapsible ball for welding .....	T. J. Bray .....	223,986	Feb. 3	16	6	17	205
Pipe-coupling .....	D. Boyle .....	223,835	Jan. 27	769	206	17	162
Pipe-coupling .....	D. B. Hand and E. H. Reitzel .....	230,018	July 13	391	164	18	105
Pipe-coupling .....	E. Riley .....	233,434	Oct. 19	807	222	18	886
Pipe-coupling .....	G. Russell and R. Gordon .....	235,384	Dec. 14	402	112	18	1356
Pipe-coupling .....	W. H. Soper .....	228,133	May 25	1220	347	17	1207
Pipe-coupling .....	W. M. Stuart .....	229,771	July 6	302	84	18	52
Pipe-crimping machine .....	F. R. Packham .....	225,636	Mar. 10	771	227	17	611
Pipe-cutter .....	E. Conners .....	231,900	Sept. 7	27	6	18	529
Pipe-cutter .....	A. Saunders .....	234,689	Nov. 23	1093	293	18	1191
Pipe cutter and wrench .....	G. A. Chapman .....	232,937	Oct. 5	169	45	18	766
Pipe-gripe .....	M. G. Lewis .....	231,181	Aug. 17	689	193	18	372
Pipe-grooving machine .....	G. P. Roseboom .....	230,064	July 13	638	178	18	113
Pipe-joint. Flexible .....	A. Bataille .....	225,267	Mar. 9	929	96, 97	17	526
Pipe joint or coupling .....	A. Bataille .....	230,606	Aug. 3	9	3	18	248
Pipe mouth-piece .....	C. M. Mitchell .....	228,099	May 25	1188	337	17	1202
Pipe-stem .....	C. J. B. Hirsch .....	226,750	Apr. 20	714	199	17	886
Pipe-wrench .....	J. Everding .....	231,023	Aug. 10	499	141	18	334
Pipe-wrench .....	G. W. Griffiths .....	227,768	May 18	790	223	17	1127
Pipe-wrench .....	W. C. Westerfield .....	228,707	June 8	644	174	17	1336
Pipes. Expansion-connection for .....	J. O. Davis .....	231,479	Aug. 24	1015	285	18	432
Pipes. Securing certain parts of subterranean .....	S. E. Babcock .....	233,183	Oct. 12	478	132	18	824
Pipes, tubing, &c. Protector for the threaded ends of .....	H. E. Boyd .....	228,171	June 1	13	4	17	1229
Pistol-holster .....	F. M. Thomson .....	229,208	June 22	1262	347	17	1443
Pistol-rest .....	I. Kinney .....	223,926	Jan. 27	884	235	17	180
Pistol-rest .....	I. Kinney .....	225,062	Mar. 2	102	28	17	473
Pistol. Revolving .....	E. and L. Nagant .....	226,923	Apr. 27	934	259	17	933
Piston .....	B. J. Sitton .....	233,169	Oct. 12	461	127	18	821
Piston .....	W. Warner .....	234,374	Nov. 9	661	180	18	1105
Piston-connection for indicators and pressure-gages .....	L. F. Lyne .....	235,791	Dec. 21	894	249	18	1445
Piston-head .....	S. Armstrong .....	230,987	Aug. 10	459	131	18	328
Piston-head .....	J. West .....	224,258	Feb. 3	320	92	17	256
Piston or diaphragm shell for brakes .....	C. D. Bingham and C. Higham .....	235,336	Dec. 14	349	95	18	1347
Piston-spring .....	W. Lockwood .....	233,262	Oct. 12	571	158	18	840
Piston. Steam .....	H. A. Jamieson .....	229,613	July 6	121	33	18	26
Piston. Steam-engine .....	E. M. Birdsall .....	225,535	Mar. 16	683	200	17	594
Pitcher .....	G. Trump .....	230,724	Aug. 3	147	43	18	270
Pitcher. Double-walled .....	A. G. Golding .....	228,626	June 8	564	149	17	1323
Pitcher. Ice .....	H. E. Osborn .....	228,106	May 25	1193	339	17	1203
Pitcher. Ice .....	H. Vasseur .....	225,440	Mar. 9	538	155	17	559
Pitcher. Molasses .....	B. F. Culver .....	224,080	Feb. 3	130	37	17	224
Pitcher. Porcelain-lined .....	W. J. Miller and H. Berry .....	227,565	May 11	548	157	17	1070
Pitman .....	A. H. Merriman .....	224,207	Feb. 3	269	78	17	248
Pitman-connection .....	A. Barnes .....	232,921	Oct. 5	154	41	18	763
Pitman-connection .....	W. F. Rundell .....	223,645	Mar. 16	780	229	17	612
Pitman-connection .....	J. Russell .....	223,817	Jan. 27	750	200 201	17	159
Pitman-connection .....	P. W. Stanhope, Jr. .....	227,393	May 11	360	106	17	1047
Pivot-gate .....	E. Lanning .....	230,291	July 20	922	262	18	166
Plaiter and ruffler. Combined .....	W. T. Elliott .....	229,877	July 13	435	120	18	81
Plaiting-machine .....	J. E. Chenette .....	223,800	Jan. 27	724	196	17	155
Plaiting-machine .....	J. F. Franta .....	224,285	Feb. 10	364	104	17	283
Plaiting-machine .....	G. W. Kendall .....	229,423	June 29	1519	419	17	1486
Plaiting-machine .....	M. A. Maybee .....	224,201	Feb. 3	263	76	17	247
Plane. Bench .....	A. P. J. Bossel .....	231,990	Sept. 7	143	37	18	547
Plane. Bench .....	F. Kraengel .....	231,331	Aug. 17	853	240	18	398
Plane. Bench .....	W. Steers .....	227,452	May 11	422	122	17	1057
Plane. Bench .....	W. T. Wainwright .....	230,088	July 13	662	185	18	117
Plane gage. Bench .....	C. Kinney .....	228,766	June 15	758	208	17	1362
Plane-iron stock. Roller for welding .....	S. A. Hewitt .....	233,754	Oct. 26	1191	330	18	961
Planer-knives. Grinding .....	C. J. Le Roy .....	234,299	Nov. 9	580	157	18	1092
Planer-tool .....	H. Dewey .....	234,545	Nov. 16	889	237	18	1152
Planer tool. Iron .....	H. Dewey .....	227,500	May 11	476	137	17	1067
Planing blind-slats. Machine for .....	G. W. Austin .....	231,389	Aug. 24	920	259 260	18	417
Planing machine. Metal .....	S. E. Hildreth .....	224,534	Feb. 17	650	186	17	340
Planing machine. Wood .....	L. P. Hoyt .....	223,851	Jan. 27	786	209 210	17	165
Plank for conveying packages .....	J. Fisher .....	232,120	Sept. 14	992	82	18	580
Plant-duster .....	J. F. Eddy .....	226,730	Apr. 20	690	192	17	883
Plant-duster .....	J. F. Eddy .....	226,731	Apr. 20	692	193	17	883
Plant-protector .....	T. Delany .....	223,892	Jan. 27	839	224	17	173
Plant-setter .....	W. W. C. Johnson .....	229,139	June 22	1193	326	17	1433
Planter .....	E. S. Plimpton .....	228,112	May 25	1197	341	17	1204
Planter and cultivator. Combined .....	J. Beeson .....	224,988	Mar. 2	8	3	17	458
Planter and cultivator. Cotton .....	J. D. Walsh .....	230,451	July 27	1153	325	18	210
Planter and cultivator. Seed .....	J. W. Thompson and J. Lloyd .....	232,911	Oct. 5	141	37	18	761
Planter and fertilizer. Check-row corn .....	H. F. Gractzel .....	224,176	Feb. 3	233	68	17	242
Planter and fertilizer-distributor. Combined corn .....	R. N. Boston .....	232,444	Sept. 21	698	193	18	653
Planter and fertilizer-distributor. Combined hand corn .....	D. A. Swanson .....	224,242	Feb. 3	303	88	17	253
Planter and fertilizer-distributor. Seed .....	R. M. Alexander .....	231,519	Aug. 24	1060	298	18	439
Planter and fertilizer-distributor. Seed .....	C. E. Gardner .....	236,015	Dec. 28	1189	329	18	1502
Planter and fertilizer-distributor. Seed .....	M. W. Whatley .....	223,421	Jan. 6	241	64	17	44
Planter and guano-distributor. Combined cotton .....	J. P. Prairie .....	232,204	Sept. 14	393	109	18	597
Planter attachment. Corn .....	J. A. Werner .....	225,899	Mar. 23	1082	309	17	671
Planter attachment. Corn .....	R. H. Whipple .....	235,662	Dec. 21	744	212	18	1420
Planter attachment. Cotton .....	C. W. Wilcoxson .....	228,153	May 25	1243	352 353	17	1211
Planter. Check-row corn .....	B. F. Burtner .....	231,883	Sept. 7	1	1	18	525
Planter. Check-row corn .....	J. A. Clearwaters .....	230,469	July 27	1169	330	18	213
Planter. Check-row corn .....	A. A. McIntosh and L. J. Lishness .....	233,534	Oct. 19	918	253	18	905
Planter. Check-row seed .....	G. W. Fink .....	234,555	Nov. 16	903	243	18	1154

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Planter check-rower. Corn.....	J. W. Hudson.....	226,859	Apr. 27	851	236	17	920
Planter check-rower. Corn.....	O. B. Rollins and J. W. Hudson.....	224,796	Feb. 24	984	279	17	410
Planter. Combined corn and cotton.....	H. H. Carter.....	233,979	Nov. 2	186	47, 48	18	1017
Planter. Corn.....	J. W. Atkinson.....	225,318	Mar. 9	407	118	17	537
Planter. Corn.....	J. M. Bell.....	235,334	Dec. 14	347	95	18	1347
Planter. Corn.....	C. Berryman.....	229,516	July 6	5	2	18	9
Planter. Corn.....	C. Brunner.....	236,274	Apr. 6	141	40	17	771
Planter. Corn.....	F. P. Castanien.....	224,872	Feb. 24	1064	304	17	423
Planter. Corn.....	R. E. Carviness and G. McCormick.....	234,243	Nov. 9	512	141	18	1081
Planter. Corn.....	J. W. Clark.....	227,488	May 11	466	134	17	1065
Planter. Corn.....	J. W. Colladay.....	223,483	Jan. 13	342	91	17	73
Planter. Corn.....	T. T. Daniels.....	233,999	Nov. 2	222	60	18	1022
Planter. Corn.....	R. H. C. Eneyart.....	228,332	June 1	200	55, 56	17	1259
Planter. Corn.....	C. G. Everett.....	229,985	July 13	551	153	18	99
Planter. Corn.....	D. Golden.....	231,558	Aug. 24	1106	310	18	445
Planter. Corn.....	L. Grieser.....	229,696	July 6	211	58	18	39
Planter. Corn.....	W. H. Haworth.....	228,068	May 25	1153	328	17	1196
Planter. Corn.....	A. Hearst.....	228,258	June 1	118	34	17	1245
Planter. Corn.....	J. F. Hudson.....	224,594	Feb. 17	729	207	17	353
Planter. Corn.....	J. R. and J. H. Johnson.....	223,353	Jan. 6	167	44	17	30
Planter. Corn.....	W. H. Johnson.....	231,428	Aug. 24	961	271	18	423
Planter. Corn.....	D. Y. Kuhns.....	235,257	Dec. 7	233	64	18	1320
Planter. Corn.....	P. S. Lutz.....	225,528	Mar. 16	651	190	17	588
Planter. Corn.....	M. R. Martin.....	233,784	Oct. 26	1920	339	18	966
Planter. Corn.....	T. B. McConaughy.....	224,099	Feb. 3	151	43	17	228
Planter. Corn.....	J. H. Neale.....	231,605	Aug. 24	1160	324	18	454
Planter. Corn.....	W. C. Peckham.....	227,822	May 18	844	239	17	1136
Planter. Corn.....	B. Phelps.....	225,719	Mar. 23	879	257	17	638
Planter. Corn.....	T. S. Richards.....	231,614	Aug. 24	1168	327	18	456
Planter. Corn.....	A. Runstetler.....	228,396	June 1	265	74	17	1269
Planter. Corn.....	M. Runstetler.....	226,115	Mar. 30	1358	382 } 383 }	17	727
Planter. Corn.....	M. Runstetler.....	226,116	Mar. 30	1360	383	17	728
Planter. Corn.....	M. Runstetler.....	231,104	Aug. 10	584	166	18	349
Planter. Corn.....	J. E. Smith.....	235,104	Dec. 7	46	14	18	1289
Planter. Corn.....	B. T. Stowell.....	225,660	Mar. 16	795	233	17	615
Planter. Corn.....	G. C. Taylor, J. V. White, and M. R. Morris.....	229,018	June 22	1063	289	17	1414
Planter. Corn.....	J. K. Voorhees.....	229,343	June 29	1433	395	17	1474
Planter. Corn.....	A. Wickey and J. W. Brown.....	234,447	Nov. 16	774	208	18	1132
Planter. Corn.....	F. S. Wing.....	228,710	June 8	646	175	17	1336
Planter. Corn and cotton.....	J. Howard.....	232,501	Sept. 21	762	211	18	665
Planter. Corn and cotton.....	T. C. H. Krüger.....	231,818	Aug. 31	1421	400	18	502
Planter. Cotton.....	W. T. Arnold.....	233,457	Oct. 19	835	231	18	891
Planter. Cotton.....	A. W. Byers and J. C. Dorser.....	233,725	Oct. 26	1159	322	18	955
Planter. Cotton.....	J. Caldwell and R. T. Vinson.....	231,757	Aug. 31	1346	379	18	490
Planter. Cotton and corn.....	G. E. Fancher.....	226,734	Apr. 20	697	194	17	884
Planter. Cotton and other seed.....	W. T. King.....	231,054	Aug. 10	528	148	18	339
Planter. Cotton-seed.....	W. J. Eason.....	232,015	Sept. 7	169	44	18	552
Planter. Cotton-seed.....	J. H. Walker.....	234,508	Nov. 16	841	225	18	1143
Planter, guano-distributor, cultivator, and cotton-chopper. Combined seed.....	S. B. Dover.....	235,219	Dec. 7	193	52, 53	18	1313
Planter. Hand.....	G. L. Hudson.....	234,984	Nov. 30	1456	391	18	1257
Planter. Hand corn.....	J. Anderes.....	227,197	May 4	129	37	17	998
Planter. Hand corn.....	C. B. Arnold.....	229,300	June 29	1377	378	17	1467
Planter. Hand corn.....	T. Bickerton.....	226,701	Apr. 20	663	184	17	878
Planter. Hand corn.....	C. D. and O. J. Boehmer.....	223,834	Jan. 27	768	205	17	162
Planter. Hand corn.....	J. M. Harrison.....	227,769	May 18	790	224	17	1127
Planter. Potato.....	L. A. Aspinwall.....	235,401	Dec. 14	420	118	18	1360
Planter. Potato.....	R. Jones and J. Stewart.....	228,902	June 15	917	250	17	1384
Planter runners. Machine for bending and shaping corn.....	M. Runstetler.....	231,621	Aug. 24	1175	328	18	457
Planter runners. Machine for upsetting blanks for corn.....	M. Runstetler.....	231,620	Aug. 24	1174	328	18	456
Planter. Seed.....	H. F. Baker.....	234,650	Nov. 23	1043	281	18	1183
Planter. Seed.....	J. Brickett.....	229,028	June 22	1072	292	17	1415
Planter. Seed.....	D. D. Briggs, Jr.....	231,264	Aug. 17	783	219	18	387
Planter. Seed.....	J. Custer.....	223,320	Jan. 6	135	34	17	25
Planter. Seed.....	E. F. Dunaway.....	225,275	Mar. 9	340	99 } 100 }	17	528
Planter. Seed.....	L. Y. Lenhart.....	232,281	Sept. 14	487	135 } 136 }	18	613
Planter. Seed.....	A. B. Pierson.....	225,022	Mar. 2	46	13	17	464
Planter. Seed.....	J. Riekey.....	231,683	Aug. 31	1256	353	18	476
Planter. Seed.....	M. Ward.....	231,514	Aug. 24	1055	296	18	438
Planter. Seed.....	S. P. and R. J. Wentz.....	223,970	Jan. 27	934	249	17	189
Planter. Seed and corn.....	T. A. Crowell.....	230,244	July 20	874	248	18	158
Planter. Sod.....	S. Neill.....	224,032	Feb. 3	67	21	17	215
Planters. Adjustable feed-plate for corn.....	S. B. Hart.....	227,771	May 18	793	224	17	1127
Planters. Check-row attachment for corn.....	W. R. Iles.....	223,288	Jan. 6	98	24	17	19
Planters. Check-row attachment for corn.....	J. Statler.....	223,821	Jan. 27	755	202	17	160
Planters. Check-row attachment for corn.....	J. W. Vincent.....	233,717	Oct. 26	1151	320	18	953
Planters. Check-row attachment for corn.....	J. S. Wood and O. W. Van Osdel.....	230,456	July 27	1158	326 } 327 }	18	211
Planters. Check-row attachment to corn.....	G. S. Simpson.....	232,151	Sept. 14	322	91	18	585
Planters. Check-rower for corn.....	A. J. Grush and J. Lockhart.....	233,927	Nov. 2	114	31	18	1006
Planters. Check-rower rope for corn.....	J. W. Hudson.....	227,787	May 18	813	230	17	1130
Planters. Check-rowing attachment for corn.....	J. W. Cornell.....	223,887	Jan. 27	835	222	17	172
Planters. Check-rowing attachment for corn.....	R. W. Johnson.....	225,986	Mar. 30	1210	342 } 343 }	17	705
Planters. Check-rowing attachment for corn.....	T. C. Lord.....	232,137	Sept. 14	308	87	18	583
Planters. Fertilizer-distributing attachment for.....	A. N. Gabel, Sr.....	229,394	June 29	1490	410	17	1481
Planters. Marking and dropping attachment for.....	W. F. Senter.....	225,426	Mar. 9	524	150	17	556
Planters. Operating the seeding mechanism of corn.....	L. Scofield.....	230,666	Aug. 3	86	24	18	260

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Planters. Reel for check-lines for corn.....	G. D. Haworth .....	236,024	Dec. 28	1200	331	18	1504
Planting seed-potatoes. Machine for.....	B. J. O'Neill .....	233,635	Oct. 26	1059	295	18	938
Planters. Self-dropping attachment for corn.....	H. C. W. Heers .....	224,826	Feb. 24	1011	286	17	415
Planters. Wheel-scraper for corn.....	J. Kelly .....	228,080	May 25	1166	332	17	1198
Planting machine. Cotton and seed.....	W. B. Garoutte .....	224,418	Feb. 10	513	147	17	307
Planting machine. Seed.....	A. Dart .....	225,804	Mar. 23	984	282 283	17	655
Plaque for painting and decoration.....	R. De Planque .....	231,657	Aug. 31	1230	346	18	472
Plastered wall.....	A. H. Becker .....	223,696	Jan. 20	598	.....	17	124
Plastering. Forming hard-finish on.....	W. Arrouquier and T. Barrett .....	228,587	June 8	520	.....	17	1317
Plastic composition upon fabrics, &c. Rolling.....	C. F. Leake .....	231,916	Sept. 7	44	11	18	532
Plastic compound.....	A. T. Woodward .....	225,679	Mar. 16	820	.....	17	619
Plastic material. Manufacture of articles from.....	J. Naylor .....	235,799	Dec. 21	905	252	18	1448
Plastic objects. Mass for manufacturing.....	B. Von Schenk .....	231,108	Aug. 10	588	.....	18	350
Plate and dish.....	A. A. Love .....	226,665	Apr. 20	625	174	17	872
Plate-lifter.....	M. Churchill .....	230,108	July 20	709	198	18	134
Plate or stove-cover rack.....	S. D. Jordan and W. A. Clark.....	235,362	Dec. 14	375	103	18	1351
Platform: See Barrel-platform. Floating dumping plat- Car-platform. form. Fifth-wheel plat. Vehicle-platform. form.							
Platform-spring.....	L. M. Fitch .....	234,974	Nov. 30	1446	389	18	1255
Plicating fabrics. Machine for.....	J. J. Scholfield .....	229,479	June 29	1587	439	17	1496
Pliers.....	R. R. Jones .....	226,756	Apr. 20	721	201	17	887
Pliers. Cutting.....	M. C. Johnson .....	232,975	Oct. 5	218	59	18	774
Pliers. Parallel.....	E. N. Parker .....	225,485	Mar. 16	601	174	17	580
Plow.....	A. Addams .....	226,148	Apr. 6	1	1	17	747
Plow.....	S. L. Allen .....	227,606	May 18	601	173	17	1099
Plow.....	J. J. Alley .....	226,150	Apr. 6	2	1	17	747
Plow.....	J. J. Alley .....	230,457	July 27	1160	327	18	211
Plow.....	L. Begon .....	227,405	May 11	371	109	17	1049
Plow.....	H. R. and D. E. Bennett.....	231,985	Sept. 7	138	36	18	546
Plow.....	C. Boul .....	232,877	Oct. 5	101	27	18	755
Plow.....	J. L. Brinly .....	229,367	June 29	1461	402	17	1478
Plow.....	W. P. Brown .....	232,450	Sept. 21	707	195	18	655
Plow.....	J. B. Bruce .....	223,987	Feb. 3	17	6	17	205
Plow.....	J. I. Case .....	229,954	July 13	518	143	18	94
Plow.....	L. Chapman .....	223,579	Jan. 13	455	123	17	92
Plow.....	L. Chapman .....	223,580	Jan. 13	455	123	17	92
Plow.....	A. G. Christman .....	223,666	Jan. 20	565	152	17	119
Plow.....	A. L. Chubb .....	225,341	Mar. 9	434	126	17	542
Plow.....	A. L. Chubb .....	225,342	Mar. 9	435	126	17	542
Plow.....	J. H. Close .....	223,708	Jan. 20	610	163	17	126
Plow.....	D. Condo .....	235,341	Dec. 14	352	97	18	1347
Plow.....	G. A. De Long .....	229,239	June 29	1297	357	17	1456
Plow.....	H. F. Edey .....	234,008	Nov. 2	231	62	18	1024
Plow.....	J. Elcock .....	231,778	Aug. 31	1367	384 385	18	494
Plow.....	M. A. Elliott .....	231,218	Aug. 17	735	206	18	379
Plow.....	W. A. Estes .....	230,623	Aug. 3	31	9	18	252
Plow.....	N. H. Foster .....	234,017	Nov. 2	240	65	18	1025
Plow.....	G. W. Gammill .....	228,885	June 15	899	246	17	1382
Plow.....	M. Glasscock .....	226,609	Apr. 20	559	156	17	862
Plow.....	C. F. Goddard .....	232,345	Sept. 21	571	157	18	633
Plow.....	H. Golyer .....	233,088	Oct. 12	360	98, 99	18	804
Plow.....	J. G. Gross .....	225,053	Mar. 2	94	26	17	472
Plow.....	J. S. Gum .....	231,308	Aug. 17	826	232	18	395
Plow.....	J. Hafner .....	228,813	June 15	820	224	17	1371
Plow.....	T. E. Jefferson .....	230,419	July 27	1106	311 312	18	202
Plow.....	T. F. Jones .....	231,913	Sept. 7	42	10	18	531
Plow.....	J. L. Judd .....	231,810	Aug. 31	1412	398	18	501
Plow.....	J. T. Kennedy .....	234,915	Nov. 30	1371	369	18	1243
Plow.....	P. Kessler .....	223,361	Jan. 6	175	46	17	32
Plow.....	J. Masson .....	235,369	Dec. 14	385	105	18	1353
Plow.....	E. G. Matthews .....	224,455	Feb. 10	556	160	17	314
Plow.....	E. May .....	232,530	Sept. 21	793	220	18	670
Plow.....	T. Meikle .....	234,920	Nov. 30	1375	370	18	1244
Plow.....	R. C. Meritt .....	235,639	Dec. 21	720	204	18	1416
Plow.....	L. Miller and H. Lighthall.....	231,441	Aug. 24	974	275	18	426
Plow.....	N. C. Orrick .....	228,835	June 15	846	231	17	1375
Plow.....	N. C. Orrick .....	233,795	Oct. 26	1236	344	18	969
Plow.....	Z. R. Percefull .....	229,455	June 29	1557	429	17	1491
Plow.....	N. G. Pinney .....	231,930	Sept. 7	59	15	18	534
Plow.....	H. Sattler .....	225,077	Mar. 2	120	34	17	477
Plow.....	R. T. Semmes .....	225,425	Mar. 9	523	150	17	556
Plow.....	D. Stanchfield .....	229,484	June 29	1600	441	17	1497
Plow.....	F. Stanley .....	225,769	Mar. 23	941	272	17	647
Plow.....	P. S. Swartz and A. Arnot.....	226,567	Apr. 13	459	138	17	839
Plow.....	T. T. Templin .....	232,315	Sept. 14	523	145	18	620
Plow.....	L. P. Thompson .....	231,378	Aug. 17	903	254	18	407
Plow.....	W. W. Turner .....	231,633	Aug. 24	1187	332	18	459
Plow.....	E. Wansbrough and W. W. Spear.....	226,641	Apr. 20	600	167	17	868
Plow.....	G. Watt .....	224,750	Feb. 17	891	255	17	381
Plow.....	R. W. Whitehurst .....	224,753	Feb. 17	894	256	17	382
Plow.....	H. Wiard and W. R. Bullock .....	229,217	June 22	1270	349	17	1444
Plow.....	D. Wolf .....	233,827	Oct. 26	1277	357 358	18	975
Plow.....	S. H. Wooldridge .....	232,868	Oct. 5	86	24	18	753
Plow and colter. Swivel.....	J. P. Holley .....	225,134	Mar. 2	179	50	17	487
Plow and cultivator.....	W. J. Davidson .....	231,701	Aug. 31	1278	359	18	480
Plow and cultivator handle.....	L. B. Morgan .....	226,535	Apr. 13	457	129	17	834
Plow and cultivator. Wheel.....	W. Pendley and A. Moss .....	226,674	Apr. 20	634	177	17	872
Plow and digger. Combined.....	J. W. Barclay and R. Sellar .....	235,490	Dec. 14	533	154	18	1378

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dist.	Vol.	Page.
Plow and pulverizing apparatus. Combined.....	C. E. Sackett.....	233,809	Oct. 26	1254	{ 348 349 350 }	18	971
Plow and seed-planter. Combined.....	J. Sapp and W. H. Mantz.....	234,616	Nov. 16	988	263	18	1168
Plow and seed-planter. Combined listing.....	L. A. Cooper and O. F. Bostwick.....	232,689	Sept. 23	978	269	18	708
Plow and seeder or planter. Combined.....	C. D. Fox.....	230,627	Aug. 3	36	10	18	253
Plow attachment.....	A. F. Fromm.....	226,657	Apr. 20	616	172	17	870
Plow attachment.....	J. R. Harbaugh.....	228,192	June 1	37	12	17	1233
Plow attachment.....	E. R. McCall.....	226,667	Apr. 20	627	175	17	872
Plow attachment.....	E. R. McCall.....	228,916	June 15	933	254	17	1387
Plow attachment.....	L. Price.....	224,223	Feb. 3	286	82	17	251
Plow attachment.....	B. L. Sims.....	225,079	Mar. 2	123	35	17	478
Plow attachment.....	C. E. Worline.....	232,796	Sept. 28	1108	303	18	730
Plow-beam.....	C. P. Buckingham.....	231,147	Aug. 17	641	181	18	364
Plow-beam.....	H. Wiard.....	229,216	June 22	1269	349	17	1444
Plow-carriage.....	J. T. McNorton.....	235,692	Dec. 21	783	{ 220 221 }	18	1427
Plow carriage. Sulky.....	L. Cabill.....	229,375	June 29	1470	405	17	1479
Plow-chill.....	W. B. Seward.....	232,305	Sept. 14	512	143	18	618
Plow. Corn.....	P. Brannan.....	224,639	Feb. 17	776	220	17	361
Plow. Corn.....	A. Michael.....	229,900	July 13	456	126	18	84
Plow. Ditching.....	J. C. McClurkin.....	231,598	Aug. 24	1152	322	18	453
Plow-draft attachment.....	H. and L. Iwan.....	224,917	Feb. 24	1112	318	17	432
Plow-gage.....	R. Sornberger.....	233,815	Oct. 26	1260	351	18	973
Plow. Gang.....	G. Armstrong and D. L. Murcheson.....	223,833	Jan. 27	767	205	17	162
Plow. Gang.....	R. Holgate.....	229,822	July 13	372	103	18	71
Plow. Gang.....	C. Myers.....	235,890	Dec. 28	1036	286	18	1477
Plow. Gang.....	H. A. Olmsted.....	230,192	July 20	803	227	18	148
Plow. Gang.....	T. Powell.....	232,845	Oct. 5	60	17	18	748
Plow. Gang.....	S. H. Woodbridge.....	232,867	Oct. 5	85	24	18	753
Plow-irons. Device for welding.....	W. B. Hickman.....	227,006	Apr. 27	1029	285	17	948
Plow. One-wheel.....	H. Borchert.....	227,723	May 18	743	208	17	1119
Plow. One-wheel.....	H. Borchert.....	233,722	Oct. 26	1157	322	18	954
Plow-jointer.....	H. A. Currier.....	234,251	Nov. 9	520	143	18	1082
Plow marking attachment.....	O. P. Brown and W. S. Deidrich.....	230,231	July 20	846	239	18	155
Plow-point.....	J. Oliver.....	223,751	Jan. 20	652	175	17	133
Plow-point. Detachable.....	M. M. Bowers.....	231,261	Aug. 17	780	218	18	386
Plow point. Shovel.....	H. C. Beebe.....	223,309	Jan. 6	123	31	17	22
Plow. Reversible.....	C. C. Brooks.....	224,136	Feb. 3	188	54	17	234
Plow. Reversible.....	A. S. Clough.....	232,001	Sept. 7	155	40	18	549
Plow. Reversible.....	B. J. Leslie.....	235,156	Dec. 7	115	33	18	1300
Plow. Reversible.....	J. L. and G. L. Woodbury.....	225,452	Mar. 9	551	159	17	561
Plow. Rotary.....	T. H. McCray.....	235,372	Dec. 14	388	{ 106 107 }	18	1353
Plow. Rotary.....	G. B. St. John and J. K. Underwood.....	227,070	Apr. 27	1113	306	17	961
Plow. Rotary.....	T. J. Tally.....	229,200	June 22	1252	344	17	1441
Plow. Rotary.....	J. K. Underwood and G. B. St. John.....	233,455	Oct. 19	834	230	18	890
Plow. Rotary gang.....	C. R. Foster.....	224,009	Feb. 3	43	13	17	210
Plow. Side-hill.....	W. Strait.....	233,046	Oct. 5	301	84	18	788
Plow. Steam.....	T. H. McCray.....	226,921	Apr. 27	931	258	17	933
Plow. Steam.....	T. H. McCray.....	234,882	Nov. 30	1329	358	18	1236
Plow. Sulky.....	A. F. Bergqvist.....	234,743	Nov. 23	1153	310	18	1200
Plow. Sulky.....	L. Berthiaume.....	225,207	Mar. 9	266	76	17	515
Plow. Sulky.....	B. C. Bradley.....	226,027	Mar. 30	1260	355	17	712
Plow. Sulky.....	J. H. Brown.....	230,859	Aug. 10	318	94	18	307
Plow. Sulky.....	L. Brown.....	226,705	Apr. 20	667	186	17	879
Plow. Sulky.....	F. C. Bryan.....	225,105	Mar. 2	146	42	17	482
Plow. Sulky.....	I. Burke.....	223,881	Jan. 27	828	{ 220 221 }	17	171
Plow. Sulky.....	L. Cabill.....	235,205	Dec. 7	179	49	18	1311
Plow. Sulky.....	H. H. Canaday.....	231,210	Aug. 17	726	204	18	377
Plow. Sulky.....	J., T. P., and J. A. Elam.....	224,820	Feb. 24	1006	285	17	414
Plow. Sulky.....	F. M. Foster.....	226,739	Apr. 20	703	195	17	884
Plow. Sulky.....	S. Gesley.....	229,816	July 13	366	101	18	70
Plow. Sulky.....	T. T. Harrison.....	232,268	Sept. 14	471	{ 130 131 }	18	610
Plow. Sulky.....	W. Hemmo.....	235,767	Dec. 21	866	242	18	1440
Plow. Sulky.....	J. I. Hoke.....	230,014	July 13	586	163	18	105
Plow. Sulky.....	F. B. Hunt.....	232,505	Sept. 21	766	212	18	665
Plow. Sulky.....	W. A. James.....	224,188	Feb. 3	249	72	17	244
Plow. Sulky.....	W. D. Japs.....	225,138	Mar. 2	182	51	17	487
Plow. Sulky.....	A. Lindgren.....	224,195	Feb. 3	256	74	17	245
Plow. Sulky.....	B. F. Litzenberg.....	224,095	Feb. 3	147	41, 42	17	228
Plow. Sulky.....	J. Mangas.....	234,046	Nov. 2	272	74	18	1031
Plow. Sulky.....	G. M. Marks.....	228,659	June 8	599	160	17	1329
Plow. Sulky.....	J. R. McCormick.....	234,683	Nov. 23	1086	292	18	1190
Plow. Sulky.....	W. V. Morgan and T. W. Hackman.....	232,052	Sept. 7	211	57	18	559
Plow. Sulky.....	J. F. Munz.....	224,713	Feb. 17	850	242	17	375
Plow. Sulky.....	J. B. Neff.....	224,034	Feb. 3	69	21, 22	17	215
Plow. Sulky.....	J. B. Neff.....	224,035	Feb. 3	71	22	17	216
Plow. Sulky.....	J. B. Neff.....	230,042	July 13	614	171	18	109
Plow. Sulky.....	C. Patterson and H. L. Abrahams.....	234,328	Nov. 9	611	166	18	1097
Plow. Sulky.....	L. W. Powell.....	230,335	July 20	974	276	18	175
Plow. Sulky.....	W. B. Quick.....	228,676	June 8	613	165	17	1331
Plow. Sulky.....	H. E. Reeves.....	230,497	July 27	1202	338	18	218
Plow. Sulky.....	W. H. Ryer.....	234,615	Nov. 16	987	262	18	1168
Plow. Sulky.....	F. F. Smith.....	235,175	Dec. 7	136	39	18	1305
Plow. Sulky.....	F. J. Smith.....	225,538	Mar. 16	663	194	17	590
Plow. Sulky.....	S. H. Taylor.....	235,313	Dec. 7	293	83	18	1330
Plow. Sulky.....	G. H. Warren.....	225,668	Mar. 16	807	236	17	616
Plow. Wheel.....	L. Chapman.....	225,744	Mar. 23	906	264	17	642
Plow. Wheel.....	R. M. Clark.....	230,528	July 27	1231	347	18	223
Plow. Wheel.....	F. S. Davenport.....	234,176	Nov. 9	430	117	18	1066
Plow. Wheel.....	I. R. Gilbert.....	230,767	Aug. 3	195	57	18	278
Plow. Wheel.....	W. D. Miller.....	225,156	Mar. 2	199	56	17	490

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Plow. Wheel.	J. L. Reuss	231,193	Aug. 17	702	198	18	374
Plows. Coupling for sulky and other.	F. F. Smith	230,902	Aug. 10	367	106	18	314
Plowshare.	R. E. Swartz	229,138	May 25	1229	349	17	1208
Plowshare-fastener	J. P. Patery	227,991	May 25	1069	304	17	1183
Plow shares and points. Machine for uniting.	J. Killefer	226,326	Apr. 6	200	59	17	782
Plugs. Machine for forming.	E. Conroy	234,966	Nov. 30	1433	{ 385 386 }	18	1253
Plumbage from its ores. Separating.	H. J. Dreher	235,858	Dec. 28	998		18	1471
Plumber-block	B. Hewitt	226,747	Apr. 20	710	197	17	886
Plumbers' traps. Machine for making.	F. N. Du Bois	233,337	Oct. 19	687	188	18	866
Plumbers' traps. Machine for making.	F. N. Du Bois	233,338	Oct. 19	688	189	18	867
Plumbers' traps. Machine for making.	F. N. Du Bois	234,463	Nov. 16	793	213	18	1135
Plumbers' traps. Manufacture of.	J. McCloskey	228,369	June 1	235	66, 67	17	1265
Pneumatic engine.	O. S. Presbrey	231,446	Aug. 24	982	276	18	427
Pocket	S. Marcus	234,487	Nov. 16	822	220	18	1140
Pocket	F. J. Rosenberg	231,618	Aug. 24	1173	328	18	456
Pocket	C. H. Shaw	232,553	Sept. 21	816	225	18	674
Pocket	W. Vogel	235,919	Dec. 28	1074	297	18	1483
Pocket-book	C. W. Jenks	227,691	May 18	702	199	17	1113
Pocket-book	H. J. Lebman	234,414	Nov. 16	736	199	18	1126
Pocket-book and satchel handle.	C. W. Jenks	227,692	May 18	702	199	17	1114
Pocket-book. Coin	J. W. Meaker	225,993	Mar. 30	1217	344	17	706
Pocket-book fastening	J. Menahan	234,314	Nov. 9	595	162	18	1094
Pocket-book frame.	S. Armstrong	230,985	Aug. 10	457	130	18	328
Pocket-book, &c., frame.	G. Jasmagy	227,258	May 4	199	58	17	1010
Pocket-book handle	S. Scheuer	233,703	Oct. 26	1135	317	18	951
Pocket-book lock	M. Rubin	230,821	Aug. 3	255	73	18	289
Pocket-books, &c. Fastening for.	C. Posen	234,805	Nov. 23	1233	332	18	1213
Pocket-knife	J. D. Frary	226,994	Apr. 27	1016	282	17	946
Pocket-knife	J. D. Frary	227,756	May 18	778	220	17	1125
Pocket-knife	T. M. Grilley	233,091	Oct. 12	369	102	18	805
Pocket-knife	N. B. Slayton	234,731	Nov. 23	1138	306	18	1198
Pocket. Pantaloon.	M. Shrier	224,959	Feb. 24	1152	329	17	438
Pocket-register	F. Horn	226,032	Dec. 28	1209	334	18	1505
Pocket. Safety.	M. A. Adler	225,038	Mar. 2	72	20	17	468
Pocket. Safety.	M. A. Adler	226,470	Apr. 13	375	107	17	821
Pocket. Safety.	M. A. Adler	231,251	Aug. 17	771	216	18	385
Pocket. Safety.	J. Rosenstock	226,678	Apr. 20	639	178	17	874
Poison-distributor.	J. Amor and A. J. Lane	226,588	Apr. 20	535	150	17	858
Poke. Animal.	T. W. Brown	230,860	Aug. 10	319	94	18	307
Poke. Animal.	J. T. Camp	224,140	Feb. 3	191	55	17	235
Poke. Animal.	A. and E. Larrowe	229,618	July 6	125	34	18	27
Poke. Animal.	G. E. W. Herbert	234,871	Nov. 30	1315	354	18	1234
Poke. Animal.	G. E. Webber	235,110	Dec. 7	53	16	18	1290
Pole and harness. Combined	J. Emmel	228,453	June 8	345	95	17	1292
Pole and shaft for vehicles. Reversible.	F. M. Heuett	232,967	Oct. 5	206	55	18	772
Pole and shaft. Vehicle	M. T. Jackson	225,221	Mar. 9	283	81	17	518
Pole. Carriage.	W. A. Galbraith	234,171	Feb. 3	229	66	17	241
Pole. Carriage.	H. Tine	228,699	June 8	635	172	17	1335
Pole-eyes for carriages. Device for making.	W. Pearce	235,805	Dec. 21	912	254	18	1449
Pole tip. Vehicle.	J. Banks	230,520	July 27	1224	345	18	222
Pole. Vehicle.	W. Boughton	226,830	Apr. 27	816	227	17	914
Pole. Wagon.	G. W. Deolittle	224,403	Feb. 10	496	142	17	304
Poles or posts. Socket for wooden	A. Brady	225,653	Mar. 23	837	243	17	631
Polishing-machine	M. R. Chase	232,682	Sept. 28	969	266	18	707
Polishing-machine	A. Newball	224,214	Feb. 3	277	80	17	249
Polishing small articles. Machine for.	G. G. Guild	224,086	Feb. 3	136	38, 39	17	225
Polishing-wheel	X. Yable	234,367	Nov. 9	652	177	18	1104
Pool-ball adjuster.	C. S. Parker	230,652	Aug. 3	69	19	18	258
Pool-ball frame	S. De Gaetano	228,879	June 15	895	244	17	1381
Pop-box.	R. M. Williamson	226,580	Apr. 13	500	141	17	841
Portable elevator.	H. H. Barnes	228,591	June 8	526	140	17	1318
Portable engine	A. Gaar	235,077	Dec. 7	19	5	18	1284
Portable engine	L. W. Hasselman	224,427	Feb. 10	522	149	17	309
Portable engine	E. W. Mills	227,566	May 11	549	158	17	1079
Portable-engine boiler.	D. M. Swain	234,627	Nov. 16	1001	267	18	1170
Portable-engine boiler.	D. M. Swain	235,041	Nov. 30	1523	410	18	1269
Portable-engine furnaces. Attachment for.	G. W. Thayer	228,489	June 8	399	109	17	1299
Portable house	E. Leo	231,593	Aug. 24	1147	321	18	452
Porte-monnaie	G. C. G. Williamson	223,789	Jan. 20	696	188	17	140
Portfolio	C. J. Brown	231,394	Aug. 24	926	261	18	418
Portfolio-stand	B. P. Shillaber	225,171	Mar. 2	214	60	17	493
Post:							
See Fence-post.	Hitching-post.						
Grazing-post.	Standard-jack post.						
Post-hole borer	H. Landin	234,992	Nov. 30	1463	394	18	1259
Post-hole digger.	J. Scheidler	226,118	Mar. 30	1363	384	17	728
Posts and columns. Construction of.	J. D. Kelly	232,274	Sept. 14	477	133	18	612
Post-office box.	W. H. Camp	231,995	Sept. 7	148	38	18	548
Post-office box.	J. Spruce	224,486	Feb. 10	586	169	17	319
Post-office-box door	W. H. Camp	224,141	Feb. 3	192	55	17	235
Post-office-box door	W. H. Camp	226,489	Apr. 13	399	113	17	825
Post-office case	J. R. Crowder and J. T. Haile	233,992	Nov. 2	198	52	18	1020
Post-office delivery-window	G. J. Krebs	226,759	Apr. 20	723	{ 201 202 }	17	888
Postal card.	H. E. W. Barton	225,319	Mar. 9	408	118	17	538
Postal card.	C. Kehr	229,893	July 13	449	124	18	84
Postmarking and canceling machine.	T. Leavitt	235,952	Dec. 28	1118	{ 308 309 }	18	1490
Pot:							
See Coffee-pot.	Marking-pot.						
Coffee and tea pot.	Tea-pot.						
Flower-pot.	Tea and coffee pot.						
Glass-house pot.							
Pot-hole lids. Receptacle for	N. D. White	223,422	Jan. 6	242	64	17	44



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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Potassium sulphate from kainit. Manufacture of....	C. N. Hake.....	229,249	June 29	1310	.....	17	1458
Potato-digger.....	L. A. Aspinwall.....	224,123	Feb. 3	176	50	17	232
Potato-digger.....	J. H. Baxter.....	232,801	Oct. 5	5	2	18	740
Potato-digger.....	T. R. Gray.....	229,602	July 6	109	29	18	25
Potato-digger.....	J. H. Lewis.....	227,984	May 25	1059	{ 301 } 302	17	1181
Potato-digger.....	J. F. Myers.....	235,166	Dec. 7	128	36, 37	18	1303
Potato-digger.....	J. L. Roderick.....	231,101	Aug. 10	582	165	18	349
Potato-fork.....	T. C. Baxter.....	227,720	May 18	742	208	17	1119
Potato-slicer.....	J. Whitehead.....	228,708	June 8	645	175	17	1336
Potato-vines, &c. Machine for sprinkling.....	S. H. Fox.....	223,332	Jan. 6	148	38	17	27
Pottery-furnace.....	G. Duryee.....	232,012	Sept. 7	166	43	18	551
Pottery. Glazing.....	B. Morahan.....	228,773	June 15	765	210	17	1364
Pottery. Preparation of clay for the manufacture of.....	S. G. Phillips.....	235,014	Nov. 30	1489	.....	18	1263
Pottery, tile, and glass furnace.....	G. Duryee.....	229,525	July 6	20	5	18	11
Pottery-ware and mortar. Manufacture of.....	J. Fultz.....	224,895	Feb. 24	1090	.....	17	428
Pottery-ware. Finishing-tool for.....	B. Morahan.....	228,774	June 15	767	210	17	1364
Pottery-ware in kilns and ovens. Apparatus for sup- porting.....	E. Leak and J. Edwards.....	224,450	Feb. 10	550	158	17	313
Pottery-ware. Manufacture of.....	H. R. Bodine.....	232,331	Sept. 21	554	.....	18	630
Powder: See Baking-powder. Phosphated nutri- tive powder.							
Powder-flasks. Charger for.....	G. A. and G. D. Capewell.....	231,533	Aug. 24	1076	302	18	441
Power: See Animal-power. Sewing-machine hand- Churn-power. power. Hand-power. Water-power. Horse-power.							
Power. Apparatus for transmitting.....	J. L. Scott.....	223,956	Jan. 27	914	244	17	185
Power-press.....	J. L. Lewis.....	235,865	Dec. 28	1007	278	18	1472
Precious metals from liquids in which they are sus- pended. Recovering.....	J. Tunbridge.....	228,004	May 25	1089	.....	17	1185
Precious stones, paste, or composition of glass. Real or imitation.....	F. E. Meyer.....	229,328	June 29	1414	387	17	1471
Precious stones, &c. Treating real or imitation.....	F. E. Meyer.....	233,364	Oct. 19	721	197	18	872
Preparations melting under 32° Fahrenheit, appa- ratus therefor, and their application.	S. H. Rouart.....	234,494	Nov. 16	828	221	18	1141
Preserving alimentary substances by means of cold. Apparatus for.....	L. Ribourt.....	235,702	Dec. 21	796	224	18	1429
Preserving animal and vegetable substances. Com- pound for.....	J. Hauff.....	234,567	Nov. 16	920	.....	18	1157
Preserving evaporated fruits and vegetables.....	H. G. Hulburd.....	228,198	June 1	43	.....	17	1234
Preserving food. Compound for.....	G. F. Holland.....	229,042	June 22	1087	.....	17	1417
Preserving fruit.....	D. M. Melford.....	226,094	Mar. 30	1335	.....	17	724
Preserving fruit.....	C. J. Renz.....	230,573	July 27	1280	361	18	232
Preserving fruit. Compound for.....	J. Craft.....	224,883	Feb. 24	1076	.....	17	425
Preserving fruit, &c. Compound for.....	G. A. Cutler.....	228,804	June 15	810	.....	17	1369
Preserving fruits and other articles.....	M. F. Derby.....	233,217	Oct. 12	517	.....	18	831
Preserving grapes, &c. Apparatus for.....	C. J. Renz.....	223,759	Jan. 20	662	178	17	135
Press: See Baling-press. Glass-press. Barrel-heading. Harness-loop press. press. Hat-press. Book-press. Hay-press. Bookbinder's press. Hay and cotton press. Butter-press. Hop-press. Cheese-press. Hydraulic press. Cider-press. Hydrostatic press. Cigar-mold press. Mcat-press. Cigar-pressing. Meat, fruit, &c., press. press. Metal-working press. Clay-press. Power-press. Copying-press. Printing-press. Cotton-press. Seal-press. Cotton and hay. Sealing-press. press. Soap-press. Filter-press. Starch-press. Filtering-press. Tobacco-press. Fruit and lard press.							
Press.....	G. B. Boomer and R. E. Boschert...	233,193	Oct. 12	489	135	18	826
Press.....	O. P. Bushnell.....	231,994	Sept. 7	147	38	18	548
Press.....	R. E. Hamilton.....	225,122	Mar. 2	166	47	17	484
Press.....	S. J. Love.....	233,941	Nov. 2	130	35	18	1009
Press-gage.....	G. H. Perkins.....	227,827	May 18	851	241	17	1137
Press mechanism for expressing liquids from fruits, &c.....	A. Zinsser.....	235,114	Dec. 7	60	18	18	1291
Presses. Blank guard for die.....	G. H. Perkins and W. McNaught ..	227,829	May 18	855	242	17	1137
Presses. Circular feed apparatus for.....	G. H. Perkins.....	228,553	June 8	472	127	17	1311
Presses, &c. Connection for.....	E. L. Perkins.....	231,929	Sept. 7	58	14	18	534
Presses. Curb for.....	R. Lavery.....	231,821	Aug. 31	1425	401	18	503
Pressure and water gage. Steam.....	E. Jerome.....	235,774	Dec. 21	874	244	18	1442
Pressure brake. Fluid.....	G. Westinghouse, Jr.....	235,922	Dec. 28	1077	299	18	1484
Pressure-gage alarm. Electric.....	G. D. Earl.....	226,165	Apr. 6	20	6	17	749
Pressure-gage for beer-stills.....	D. Horan.....	226,614	Apr. 20	566	158	17	863
Pressure-gage. Recording.....	A. M. Sherman.....	228,479	June 8	375	{ 102 } 103	17	1296
Pressure-regulator.....	W. Foster.....	226,394	Apr. 13	279	83	17	807
Pressure-regulator.....	N. C. Locke.....	225,015	Mar. 2	37	11	17	463
Pressure-regulator.....	J. E. Watts.....	235,186	Dec. 7	146	42	18	1306
Pressure regulator. Fluid.....	R. Boeklen.....	224,575	Feb. 17	702	200	17	349
Pressure regulator. Fluid.....	W. L. Horne and A. M. Corning ..	227,785	May 18	809	229	17	1130
Pressure regulator. Fluid.....	A. Kipp, Jr., and H. Murphy.....	224,190	Feb. 3	250	73	17	245

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Pressure regulator. Fluid.....	G. Westinghouse, Jr.....	225,898	Mar. 23	1079	{ 308 309 }	17	671
Pressnre-regulator for air, &c.....	C. Moore.....	234,051	Nov. 2	277	76	18	1032
Pressurc-regulator for air-compressors.....	K. D. Bishop and A. G. Class.....	229,083	June 22	1134	309	17	1424
Pressure-regulator valve.....	J. Danby.....	223,891	Jan. 27	838	224	17	173
Printer for cannon.....	J. B. Redman.....	232,210	Sept. 14	400	111	18	598
Printed and varnished sheets. Machine for drying.....	L. A. Fernow.....	226,735	Apr. 20	698	194	17	884
Printers, book-binders, &c. Pressing-machine for.....	J. W. Jones.....	223,355	Jan. 6	169	44, 45	17	31
Printer's chaso.....	J. Kingsland, Jr.....	228,201	June 1	45	14	17	1234
Printer's chase.....	J. La Dow.....	234,877	Nov. 30	1323	{ 356 357 }	18	1235
Printer's form.....	C. F. Blakely.....	230,607	Aug. 3	10	3	18	248
Printer's galley.....	W. H. Bateman and F. X. Hooper.....	231,525	Aug. 24	1067	300	18	440
Printers' leads, &c. Machine for cutting.....	F. S. Taft.....	233,894	Nov. 2	77	20	18	1000
Printer's locking-up device.....	H. A. Hempel.....	227,004	Apr. 27	1027	284	17	948
Printer's quoin.....	G. Scott.....	232,551	Sept. 21	815	225	18	674
Printer's quoin.....	C. G. Squintani.....	232,410	June 1	278	78	17	1271
Printer's rule.....	F. Schley.....	233,704	Oct. 26	1135	317	18	951
Printer's type-case.....	J. T. Edson.....	228,251	June 1	108	32	17	1244
Printing apparatus. Cash-controlling.....	C. Abele.....	225,203	Mar. 9	261	75	17	515
Printing. Autographic.....	J. J. Bardwell.....	223,873	Jan. 27	820	.....	17	170
Printing-block. Composition.....	J. E. Jefferies.....	231,491	Aug. 24	1027	.....	18	434
Printing. Illuminated.....	W. H. Caldwell.....	230,741	Aug. 3	167	49	18	273
Printing linear measurements upon fabrics. Ma- chine for.....	J. J. Scholfield.....	230,441	July 27	1134	{ 319 320 }	18	207
Printing-machine.....	E. L. Gilman.....	224,897	Feb. 21	1092	313	17	428
Printing-machine.....	P. D. Hedderwick.....	231,316	Aug. 17	833	{ 234 235 }	18	396
Printing-machine beds. Locking plates to.....	S. Crump.....	224,658	Feb. 17	797	225	17	365
Printing machine. Chromatic.....	T. B. Dooley.....	235,606	Dec. 14	674	191	18	1401
Printing machine. Chromatic.....	W. P. Kidder.....	224,440	Feb. 10	540	{ 155 156 }	17	312
Printing machine. Chromatic.....	J. H. Shiffer.....	225,951	Mar. 30	1171	{ 332 333 }	17	699
Printing machine. Chromatic.....	G. M. Wright.....	225,501	Mar. 16	618	179	17	583
Printing-machine. Cylinder.....	C. C. Butler.....	230,740	Aug. 3	165	49	18	273
Printing-machine delivery apparatus.....	C. Kahler.....	225,142	Mar. 2	186	52	17	488
Printing-machine delivery apparatus.....	C. Potter, Jr.....	229,635	July 6	141	40	18	30
Printing-machine delivery apparatus.....	C. Potter, Jr.....	232,203	Sept. 14	392	109	18	597
Printing-machine feeding mechanism.....	J. T. Hawkins.....	228,529	June 8	441	120	17	1306
Printing-machine inking-fountain.....	Z. R. Bennett.....	225,964	Mar. 30	1185	337	17	701
Printing-machine inking-fountain.....	J. X. Browne.....	229,303	June 29	1381	319	17	1467
Printing machine. Lithographic.....	H. C. Pfeil.....	223,243	Jan. 6	41	10	17	9
Printing-machine. Oscillating.....	T. Forknall.....	233,227	Oct. 12	529	147	18	833
Printing machine. Plate.....	A. H. Bogart.....	224,132	Feb. 3	184	53	17	234
Printing machine. Ribbon-paper.....	T. G. Hoster.....	224,537	Feb. 17	652	187	17	341
Printing-machine. Rotary.....	G. Bissinger.....	223,981	Feb. 3	9	3, 4	17	204
Printing-machine set-off.....	J. L. Firm.....	227,157	May 4	84	23	17	991
Printing-machine sheet-delivery apparatus.....	L. C. Crowell.....	233,993	Nov. 2	199	{ 52 53 54 }	18	1020
Printing-machine sheet-delivery apparatus.....	R. M. Hoc and S. D. Tucker.....	226,916	Apr. 27	922	{ 256 257 }	17	931
Printing-machine sheet-delivery apparatns.....	W. Scott.....	228,782	June 15	778	213	17	1366
Printing-machine sheet-delivery apparatus.....	W. Scott.....	233,641	Oct. 26	1066	{ 296 297 }	18	929
Printing-machine sheet-delivery apparatus.....	S. D. Tucker.....	227,599	May 11	590	{ 168 169 }	17	1086
Printing-machine sheet-delivery mechanism.....	C. B. Cottrell.....	232,006	Sept. 7	160	41	18	550
Printing-machines. Device for straightening paper as delivered from.....	A. Binkard.....	227,344	May 11	306	89	17	1039
Printing-machines. Ink-roller attachment for.....	G. A. Miller.....	232,744	Sept. 28	1040	285	18	719
Printing machines. Stretching and drying appara- tus for calico.....	F. J. Crowley.....	234,541	Nov. 16	882	235	18	1150
Printing-machines. Supplement-introducing mech- anism for.....	L. C. Crowell.....	225,746	Mar. 23	909	{ 264 265 266 }	17	643
Printing on textile fabrics.....	L. Prang.....	224,949	Feb. 24	1143	.....	17	437
Printing-pad. Elastic transfer.....	G. K. Snow.....	228,567	June 8	492	132	17	1313
Printing. Photo-mechanical.....	J. H. Whitley.....	228,579	June 8	506	136	17	1315
Printing-plate. Photo-mechanical.....	J. H. Whitley.....	229,930	July 13	492	136	18	90
Printing. Preparing autographic stencils for.....	T. A. Edison.....	224,665	Feb. 17	805	238	17	366
Printing-press delivery apparatus.....	J. T. Hawkins.....	225,280	Mar. 9	364	107	17	530
Printing-press feeding attachment.....	F. L. Goss.....	229,998	July 13	571	158	18	102
Printing-press. Multiple-color.....	S. Crump.....	228,517	June 8	428	117	17	1303
Printing-press. Oscillating.....	E. M. Coryell.....	229,675	July 6	185	52	18	36
Printing-press. Oscillating.....	L. Frik.....	229,114	June 22	1164	319	17	1429
Printing-press. Oscillating.....	H. S. Griffiths.....	227,520	May 11	498	143	17	1071
Printing-press reversing mechanism.....	C. Potter, Jr.....	229,273	June 29	1337	367	17	1462
Printing-press sheet-delivering apparatus.....	S. D. Tucker.....	225,666	Mar. 16	803	{ 234 235 236 }	17	616
Printing-presses. Collating attachment for.....	C. Ellery.....	226,604	Apr. 20	553	154	17	861
Printing presses. Die-clamp for plate.....	L. Dreka.....	223,323	Jan. 6	140	25	17	25
Printing-presses. Traversing inking-roller for.....	A. Suedlock.....	234,433	Nov. 16	758	204	18	1129
Printing-surface.....	W. C. Walter.....	232,786	Sept. 23	1097	301	18	728
Printing surfaces. Producing plate.....	P. H. Mandel.....	229,435	June 29	1534	.....	17	1488
Printing-wheel. Hand.....	M. J. Stark.....	232,836	Oct. 5	71	20, 21	18	751
Privy-wells. Strainer for.....	B. Mensch.....	228,661	June 8	600	160	17	1329
Projectile.....	H. H. Sibley.....	225,650	Mar. 16	785	230	17	613
Propeller.....	R. Gardner.....	234,267	Nov. 9	542	148	18	1085
Propeller. Atmospheric.....	M. Kelly.....	231,812	Aug. 31	1414	398	18	501
Propeller. Canal-boat.....	G. W. Hall.....	227,245	May 4	185	54	17	1008
Propeller. Canal-beat.....	T. Rose.....	226,931	Apr. 27	943	261	17	934

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr's.	Vol.	Page.
Propeller for boats. Sculling.....	T. J. Coulter.....	227,491	May 11	469	135	17	1066
Propeller for boats. Vibrating.....	T. J. Coulter.....	233,209	Oct. 12	506	140	18	829
Propeller for vessels. Reciprocating.....	R. Smith.....	230,204	July 20	819	232	18	151
Propeller. Reciprocating.....	J. W. Capen.....	223,882	Jan. 27	830	221	17	171
Propeller. Screw.....	D. G. Haskins.....	224,289	Feb. 10	368	105	17	284
Propeller. Screw.....	L. Perkins.....	229,270	June 29	1333	{ 366 367 }	17	1461
Propeller. Screw.....	G. J. Stevens and J. S. Smith.....	235,657	Dec. 21	738	210	18	1419
Propeller. Screw.....	J. B. Ward.....	226,466	Apr. 13	370	106	17	820
Propeller shaft. Screw.....	J. Fisher.....	231,553	Aug. 24	1101	308	18	445
Propeller. Vibrating.....	S. Barnes.....	226,957	Apr. 27	969	{ 269 270 }	17	939
Propeller. Vibrating.....	B. C. Senton.....	232,076	Sept. 7	240	66	18	563
Propeller. Vibrating.....	H. K. Shanck.....	224,233	Feb. 3	294	85	17	252
Propeller-wheel. Reaction.....	K. R. Olmsted.....	230,566	July 27	1273	359	18	231
Propelling row-boats. Apparatus for.....	H. N. Staats.....	225,822	Dec. 21	931	260	18	1452
Propelling ships.....	F. Von Leicht.....	230,160	July 20	767	214	18	142
Propelling vessels.....	J. Trent.....	233,127	Oct. 12	414	114	18	812
Propelling vessels. Mechanism for.....	B. Palmer.....	234,607	Nov. 16	980	260	18	1167
Propulsion of canal-boats. Pneumatic.....	R. H. Tucker.....	227,323	May 4	266	78	17	1022
Protector: See Berth-protector. Lamp-chimney protector. Book-cover protect. Pantaloon-protector. or. Plant-protector. Counter and heel Purse or wallet protector. protector. Shoe-heel protector. Dress-protector. Thrashing-machine-sieve Eye-protector. protector. Grave-protector. Tree-protector. Hoof-protector. Window and door protect- Horse-foot protector. or.							
Protractor.....	G. Salot.....	227,844	May 18	870	248	17	1140
Protractor and scale. Surveyor's combined.....	N. Wilson.....	224,811	Feb. 24	998	282	17	413
Pruning implement.....	J. M. Bailey.....	234,939	Nov. 30	1397	376	18	1247
Pruning implement.....	G. J. Cline.....	225,798	Mar. 23	978	281	17	654
Pruning implement.....	P. P. Flournoy.....	230,539	July 27	1246	351	18	226
Pruning implement.....	J. N. Harrison and E. F. Wilson.....	223,625	Jan. 13	506	137	17	100
Puddling and boiling furnace.....	B. Rogan.....	223,610	Jan. 13	490	132	17	97
Puddling and heating furnace.....	M. V. Smith.....	230,583	July 27	1293	364	18	234
Puddling and heating furnace.....	W. Stubblebine.....	223,962	Jan. 27	925	247	17	187
Puddling and heating furnace.....	W. Stubblebine.....	226,368	Apr. 6	243	72	17	790
Puddling-furnace.....	B. Phillips.....	229,177	June 22	1229	337	17	1438
Puddling-furnace attachment.....	J. D. Williams.....	227,339	May 4	282	82	17	1024
Puddling-furnaces. Fix or fettling for.....	D. and S. Thomas.....	231,121	Aug. 10	604	.....	18	352
Puller: See Grub and stump. Stump-puller. puller.							
Pulley.....	J. B. Stockham.....	228,415	June 1	282	80	17	1272
Pulley and mechanism for counter-shafting.....	J. L. McKee.....	229,004	June 22	1052	286	17	1412
Pulley apparatus. Differential.....	W. H. Thompson.....	225,953	Mar. 30	1174	333	17	699
Pulley attachment.....	F. A. Kittell.....	234,585	Nov. 16	957	254	18	1163
Pulley. Belt.....	W. J. Fetter.....	232,635	Sept. 28	915	251	18	698
Pulley-block sheave.....	C. H. Hadley.....	223,795	Jan. 20	702	189	17	141
Pulley. Clothes-line.....	D. H. and J. H. Payne.....	223,947	Jan. 27	906	241	17	183
Pulley. Expansion.....	W. F. Hill and T. H. Hulbert.....	227,358	May 11	323	94	17	1042
Pulley. Expansion.....	C. E. Jones.....	234,876	Nov. 30	1322	356	18	1235
Pulley. Friction.....	A. T. Arnold.....	233,181	Oct. 12	477	131	18	823
Pulley. Portable hoisting.....	L. T. Pyott.....	235,645	Dec. 21	726	206	18	1417
Pulley. Safety.....	C. C. P. McCord.....	231,828	Aug. 31	1433	403	18	504
Pulley. Stop.....	A. S. Dickinson.....	224,662	Feb. 17	801	227	17	366
Pulley. Suspension clothes-line.....	D. H. and J. H. Payne.....	236,076	Dec. 28	1258	347	18	1514
Pulp, &c. Conversion of marine plants into.....	E. V. J. L. Gorges.....	231,484	Aug. 24	1020	.....	18	433
Pulp engine. Wood.....	J. Chase.....	233,071	Oct. 12	340	94	18	801
Pulp. Grinding-cylinder for reducing wood to.....	S. M. Allen.....	232,304	Jan. 6	119	30	17	22
Pulp. Machine for making wood.....	N. Cowan.....	228,041	May 25	1117	318	17	1190
Pulp. Machine for preparing wood.....	J. C. Potter.....	233,014	Oct. 5	258	71	18	781
Pulp. Machine for reducing wood to.....	C. W. Clark.....	229,588	July 6	94	25	18	23
Pulp machine. Wood.....	C. W. Clark.....	231,761	Aug. 31	1349	380	18	491
Pulp machine. Wood.....	G. P. Enos.....	230,471	July 27	1175	331	18	214
Pulp machine. Wood.....	A. Fickett.....	232,480	Sept. 21	736	205	18	660
Pulp machine. Wood.....	H. A. Frambach.....	229,879	July 13	437	120	18	81
Pulp machine. Wood.....	J. W. Martin.....	225,292	Mar. 9	378	110	17	532
Pulp, &c. Manufacture of artificial-stone grinders for making wood.....	S. M. Allen.....	235,721	Dec. 21	816	.....	18	1432
Pulp mills. Feed for wood.....	H. A. Frambach.....	233,611	Oct. 26	1028	286	18	933
Pulp mills. Feed mechanism for wood.....	A. W. Priest.....	228,477	June 8	372	102	17	1296
Pulp, or from sheets made from such pulp, &c. Man- ufacture of slabs or blocks from wood or paper	L. A. Brode.....	233,322	Oct. 19	671	.....	18	864
Pulp-strainer.....	L. Zeyen.....	226,819	Apr. 20	786	219	17	899
Pulp-strainer.....	L. Zeyen.....	235,976	Dec. 28	1145	317	18	1495
Pulping and grinding fibrous and other materials. Machine for.....	C. E. B. and J. Cooke and G. Hib- bert.....	232,460	Sept. 21	715	198	18	656
Pulping machine. Wood.....	W. A. Doane.....	224,405	Feb. 10	498	143	17	304
Pulverizer. Soil.....	J. Lefeber.....	223,927	Jan. 27	884	235	17	181
Pulverizing apparatus.....	R. G. Fairbanks and D. E. Breinig..	227,970	May 25	1045	{ 297 298 }	17	1179
Pump.....	A. S. Baker.....	232,103	Sept. 14	276	77	18	577
Pump.....	H. R. Baker.....	223,631	Jan. 20	526	142	17	113
Pump.....	G. S. Bartlett.....	232,666	Sept. 28	955	262	18	704
Pump.....	G. F. and W. O. Beebe.....	226,018	Mar. 30	1249	{ 352 353 }	17	710
Pump.....	W. Burlingham.....	232,629	Sept. 28	908	250	18	697
Pump.....	R. Bush.....	232,935	Oct. 5	168	44	18	765
Pump.....	G. H. Corliss.....	235,742	Dec. 21	839	235	18	1436

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & G.	Vol.	Page.
Pump.....	G. H. Corliss.....	235,743	Dec. 21	841	235	18	1436
Pump.....	G. H. Felt.....	224,663	Feb. 17	869	229	17	367
Pump.....	J. F. Gelletly.....	224,331	Feb. 10	414	118	17	291
Pump.....	W. M. Gibson.....	227,761	May 18	783	222	17	1126
Pump.....	N. Holmes.....	234,189	Nov. 9	446	121	18	1069
Pump.....	T. G. Hoster.....	225,930	Mar. 30	1135	323	17	693
Pump.....	H. A. Jamieson.....	229,612	July 6	120	32	18	26
Pump.....	P. E. Jay.....	234,407	Nov. 16	728	197	18	1125
Pump.....	L. M. Kanavel.....	234,583	Nov. 16	956	253	18	1162
Pump.....	W. S. Laney.....	228,203	June 1	47	15	17	1235
Pump.....	E. Lannay.....	225,148	Mar. 2	191	54	17	489
Pump.....	E. D. Leavitt, Jr.....	231,059	Aug. 10	532	150	18	340
Pump.....	D. C. Lee.....	225,398	Mar. 9	497	144	17	552
Pump.....	A. H. Lighthall.....	232,520	Sept. 21	781	216	18	668
Pump.....	E. T. Ligon.....	224,193	Feb. 3	254	71		
Pump.....	H. S. Lockman.....	228,089	May 25	1176	334	17	1200
Pump.....	E. S. Mack.....	223,366	Jan. 6	180	47		
Pump.....	D. P. Manrose.....	227,439	May 11	409	119	17	1055
Pump.....	J. M. and R. P. Mathews.....	235,547	Dec. 14	605	172	18	1390
Pump.....	W. S. McLeod.....	226,093	Mar. 30	1333	376	17	724
Pump.....	M. S. Millard.....	227,177	May 4	103	30	17	995
Pump.....	A. S. Parke.....	234,923	Nov. 30	1379	371	18	1244
Pump.....	J. A. Pease.....	225,488	Mar. 16	604	175	17	581
Pump.....	J. W. Powers.....	230,149	July 20	756	211	18	141
Pump.....	L. D. Railsback.....	225,417	Mar. 9	515	148	17	555
Pump.....	J. E. Rogers.....	234,069	Nov. 2	295	81, 82	18	1035
Pump.....	J. A. Sinclair.....	226,005	Mar. 30	1234	349	17	708
Pump.....	A. Teellner.....	230,836	Aug. 3	280	80	18	293
Pump.....	W. D. Trahern.....	231,460	Aug. 24	996	280	18	429
Pump.....	N. J. Tubbs.....	231,379	Aug. 17	903	254	18	407
Pump.....	E. N. Wallis.....	231,124	Aug. 10	606	172	18	352
Pump. Acid siphon.....	{ F. Nichols, W. B. Manwaring, and } O. L. Livesey.....	231,841	Aug. 31	1446	406	18	506
Pump. Air.....	W. Autenrietti.....	234,516	Nov. 16	852	228		
Pump. Air.....	H. R. Drake.....	231,217	Aug. 17	735	206	18	379
Pump. Air.....	E. Reynolds.....	227,652	May 18	653	186	17	1106
Pump and feed-water heater.....	G. Kratz.....	228,538	June 8	451	123	17	1307
Pump attachment.....	S. Donaldson.....	235,938	Dec. 28	1099	304	18	1487
Pump attachment.....	T. Martin.....	231,964	Sept. 7	114	29	13	542
Pump attachment.....	I. H. Palmer.....	232,143	Sept. 14	314	89	18	583
Pump attachment. Force.....	S. L. French.....	233,667	Oct. 26	1097	305	18	944
Pump-bracket.....	S. J. Adams and W. D. Platter.....	235,612	Dec. 21	691	197	18	1411
Pump-brake.....	W. H. Clond.....	224,389	Feb. 10	481	138	17	302
Pump bucket. Chain.....	W. P. Harrison.....	231,566	Aug. 24	1115	312	18	447
Pump bucket. Chain.....	G. W. Laraway and F. C. Rockwell.....	234,588	Nov. 16	962	255	18	1163
Pump bucket. Chain.....	J. D. Shoots.....	232,554	Sept. 21	817	226	18	674
Pump. Cattle.....	J. P. Clement.....	229,587	July 6	94	25	18	23
Pump. Cattle.....	E. Hoover.....	232,499	Sept. 21	760	210	18	664
Pump. Cistern.....	M. Wieser.....	225,193	Mar. 2	239	66	17	497
Pump. Compression and vacuum.....	J. C. De La Vergne and W. M. Mixer.....	233,736	Oct. 26	1170	325	18	956
Pump. Diaphragm ship's.....	J. Edson.....	234,551	Nov. 16	897	241		
Pump. Double-acting.....	P. M. Barker.....	230,731	Aug. 3	153	45	18	271
Pump for boilers. Feed.....	F. Murphy.....	233,791	Oct. 26	1232	342	18	968
Pump for compressing illuminating-gas.....	R. J. and J. Pintsch.....	235,646	Dec. 21	727	206	18	1417
Pump. Force.....	S. Kimble, Jr.....	235,782	Dec. 21	882	246		
Pump. Force.....	P. A. Myers.....	228,103	May 25	1191	338	17	1202
Pump. Force.....	C. E. Newman.....	233,006	Oct. 5	249	68, 69	18	779
Pump. Force.....	S. Paradis.....	233,012	Oct. 5	256	70, 71	18	780
Pump. Force.....	H. Reece.....	225,946	Mar. 30	1161	330	17	697
Pump-lever attachment. Sand.....	J. Moloney.....	226,534	Apr. 13	456	129	17	834
Pump. Lift.....	J. K. Leedy.....	224,931	Feb. 24	1124	321	17	434
Pump. Lift.....	P. T. Perkins.....	228,383	June 1	252	71	17	1267
Pump. Lift.....	C. B. Putnam.....	233,164	Oct. 12	455	125	18	820
Pump. Lifting and force.....	E. Barnes.....	224,509	Feb. 17	619	179	17	336
Pump. Lubricating.....	E. G. Feltbousen.....	234,864	Nov. 30	1307	352	18	1232
Pump. Measuring.....	F. Harris.....	231,795	Aug. 31	1394	393	18	498
Pump. Mining.....	W. E. Harris.....	223,848	Jan. 27	783	209	17	164
Pump. Oil.....	H. F. Gaskill and J. G. Benton.....	233,231	Oct. 12	534	149	18	833
Pump reel. Sand.....	W. R. Edelen.....	226,009	Dec. 28	1181	327	18	1501
Pump regulator. Steam.....	C. E. Spiller.....	229,644	July 6	149	42	18	31
Pump-rod adjuster for oil-wells.....	H. Balliet.....	229,351	June 29	1448	399	17	1476
Pump. Rotary.....	R. Bush.....	224,870	Feb. 24	1063	303	17	423
Pump. Rotary.....	J. Hallner.....	228,344	June 1	210	59	17	1261
Pump. Rotary.....	G. M. Marshall.....	232,256	Sept. 14	492	137	18	614
Pump. Rotary.....	E. B. Newcomb.....	226,773	Apr. 20	736	205	17	890
Pump. Rotary.....	W. C. Phillips.....	232,901	Oct. 5	127	33, 34	18	759
Pump. Rotary.....	J. M. Taylor.....	223,684	Jan. 20	584	157	17	122
Pump. Sand.....	G. W. Rose.....	233,549	Oct. 19	939	258	18	908
Pump. Ship's.....	C. V. Decker.....	225,353	Mar. 9	446	130	17	544
Pump. Siphon.....	W. B. Manwaring.....	232,525	Sept. 21	787	218	18	669
Pump. Siphon propeller.....	E. E. Tassej.....	230,723	Aug. 3	146	43	18	270
Pump. Steam.....	E. E. Miller.....	234,601	Nov. 16	973	259	18	1165
Pump. Steam.....	M. Schultz.....	235,905	Dec. 28	1053	291	18	1480
Pump. Steam.....	A. Snyder.....	235,037	Nov. 30	1517	498	18	1268
Pump. Steam fire-engine.....	A. G. Rouan.....	227,655	May 18	657	186		
Pump. Steam-jet.....	W. Randall and F. R. Tuttle.....	228,275	June 1	142	40	17	1249
Pump. Steam vacuum.....	O. R. Davis.....	226,285	Apr. 6	154	44	17	774

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Pump. Submerged.....	W. O. Beebe, F. B. Dickey, and C. W. Barnes.....	226,019	Mar. 30	1250	353	17	711
Pump. Vacuum.....	W. H. Guild, Jr.....	224,179	Feb. 3	236	69	17	242
Pump-valve.....	H. R. Barber.....	231,522	Aug. 24	1063	299	18	439
Pump-valve.....	W. W. Dusenbury.....	232,951	Oct. 5	187	50	18	769
Pump-valve.....	H. F. Gaskill.....	220,881	July 13	439	121	18	82
Pump-valve.....	A. S. Parke.....	230,892	Aug. 10	357	103	18	312
Pump valve. Lift.....	H. V. Myer.....	228,668	June 8	605	162	17	1330
Pump valve-movement. Steam.....	A. J. Blakeslee.....	233,318	Oct. 19	667	184	18	864
Pump valve-seat.....	G. H. Corliss.....	235,747	Dec. 21	846	236	18	1437
Pump valve. Steam.....	M. F. De Souza.....	225,575	Mar. 16	702	206 207	17	599
Pump. Windmill.....	J. and R. Bean.....	226,699	Apr. 20	660	184	17	878
Pump. Windmill.....	D. C. Walling.....	232,577	Sept. 21	836	232	18	678
Pumps. Detachable bracket for steam.....	E. E. Miller.....	231,440	Aug. 24	974	274	18	425
Pumps. Motor for operating.....	G. H. Gaston and M. Campbell.....	230,474	July 27	1179	332	18	215
Pumps. Valve-gear for steam.....	W. P. Stephenson.....	224,964	Feb. 24	1155	330	17	439
Pumping apparatus.....	W. V. Henry.....	227,528	May 11	507	146	17	1072
Pumping apparatus. Vacuum.....	G. Frings and R. Müller.....	232,638	Sept. 28	918	252 253	18	698
Pumping attachment for hydrant-hose, &c.....	B. C. Wilson.....	224,370	Feb. 10	461	132	17	299
Pumping-engine.....	C. B. Wells.....	231,128	Aug. 10	610	173	18	353
Pumping-engine.....	N. W. Wheeler.....	223,663	Jan. 20	560	150 151	17	118
Pumping-engine. Steam.....	E. Cope and J. R. Maxwell.....	226,837	Apr. 27	823	229 230	17	916
Pumping oil-wells. Apparatus for.....	E. D. Yates.....	226,948	Apr. 27	961	266 267	17	937
Pumping system.....	C. Tyson.....	226,008	Mar. 30	1233	350	17	709
Punch for paper-fasteners. Eyelet.....	F. J. Lippitt.....	230,296	July 20	929	264	18	167
Punch. Metal.....	I. P. Richards.....	229,840	July 13	398	109	18	75
Punch. Ticket.....	W. J. Brundred.....	224,271	Feb. 10	345	99	17	280
Punch. Ticket.....	W. Hill.....	230,129	July 20	732	205	18	137
Punching angle-bars and channel-bars. Machine for.....	G. H. Sellers.....	230,968	Aug. 10	433	124 125	18	324
Punching-machine.....	W. and C. Sellers.....	236,096	Dec. 28	1278	352 353	18	1516
Punching-machine feeding device.....	C. Hildebrand.....	233,757	Oct. 26	1194	331 332	18	961
Punching-machine. Gunpowder.....	T. Shaw.....	223,767	Jan. 20	670	180	17	136
Punching-machine. Hydraulic.....	W. C. Jones.....	233,419	Oct. 19	701	218	18	883
Punching metal. Hand device for.....	S. G. Wilcox.....	232,583	Sept. 21	841	234	18	679
Purse. Coin.....	W. H. Ellery.....	234,009	Nov. 2	232	62	18	1024
Purse or satchel fastener.....	N. C. Larsen.....	227,022	Apr. 27	1049	291	17	952
Purse or wallet protector.....	A. Whitenack.....	225,088	Mar. 2	132	38	17	479
Puzzle and game apparatus. Combination.....	J. R. Barry.....	234,223	Nov. 9	492	135	18	1077
Puzzle-block. Geometrical.....	N. Mason.....	232,140	Sept. 14	312	88	18	583
Pyrometer.....	E. Brown.....	234,168	Nov. 9	421	114	18	1064
Pyrometer.....	E. Brown.....	234,169	Nov. 9	422	114	18	1064
Pyrometer.....	R. Spencer.....	235,389	Dec. 14	407	114	18	1357
Pyroxyline in the manufacture of plastic compounds. Treating.....	J. and C. Schmerber.....	233,558	Oct. 19	950	.....	18	910
Rack:							
See Book-rack. Pen-rack.							
Bow and arrow rack. Plate or stove-cover rack.							
Clothes-rack. Refrigerator-bottle rack.							
Feed-rack. Sheep-rack.							
Hay-rack. Towel-rack.							
Music-rack. Wagon-rack.							
Radiator.....	J. Brosius.....	232,235	Sept. 14	427	118	18	603
Radiator.....	J. Du Bois.....	228,616	June 8	551	146	17	1322
Radiator.....	T. Fairbanks.....	231,413	Aug. 24	943	267	18	420
Radiator.....	E. E. Gold.....	231,485	Aug. 24	1020	287	18	433
Radiator.....	W. L. Phillips.....	223,382	Jan. 6	196	52	17	36
Radiator and generator. Steam.....	G. H. Pond.....	232,844	Oct. 5	59	17	18	748
Radiator for stove-pipes.....	C. F. Adams.....	232,429	Sept. 21	677	187	18	650
Radiator. Steam.....	S. E. Babcock.....	230,219	July 20	836	236	18	153
Radiator. Steam.....	G. W. Blake.....	224,131	Feb. 3	183	52	17	234
Radiator. Steam.....	W. H. Brooks.....	235,503	Dec. 14	554	158	18	1382
Radiator. Steam.....	L. G. Goldsmith and N. Reed.....	230,267	July 20	900	255	18	162
Radiator. Steam.....	E. F. Gordon.....	227,517	May 11	495	142	17	1070
Radiator. Steam.....	T. C. Joy.....	231,722	Aug. 31	1304	367	18	484
Radiator. Steam.....	H. Mooers.....	234,419	Nov. 16	740	200	18	1127
Radiator. Steam.....	T. M. Morton.....	233,428	Oct. 19	800	221	18	885
Radiator. Steam.....	F. Tudor and Q. N. Evans.....	224,055	Feb. 3	99	29	17	220
Radiator. Steam.....	C. C. Walworth.....	230,368	July 20	1010	286	18	181
Radiator. Steam-heating.....	B. Holly.....	232,821	Oct. 5	30	9	18	743
Rag engines. Bed-plate for paper.....	G. A. Corser.....	224,079	Feb. 3	129	36	17	224
Rail-chair.....	J. B. Tarr.....	227,456	May 11	423	124	17	1058
Rail chair. Switch.....	W. C. Hurd.....	223,591	Jan. 13	467	127	17	94
Rail-joint.....	W. F. Ash.....	225,266	Mar. 9	328	96	17	526
Rail-joint.....	W. W. Fay.....	223,899	Jan. 27	844	225	17	174
Rail-joint.....	J. Lockhart.....	229,538	July 6	39	10	18	14
Rail-joint.....	J. Meehan and J. Kinsey.....	230,643	Aug. 3	58	16	18	256
Rail-sanding apparatus for locomotives.....	A. N. Keirkner.....	223,231	Jan. 6	28	7	17	7
Rails. Hardening the heads of.....	G. Webb.....	223,564	Jan. 13	437	118 119	17	89
Rails. Slitting old.....	W. Hewitt.....	224,827	Feb. 24	1013	287	17	415
Railing. Metal.....	J. B. Wickersham.....	230,977	Aug. 10	445	128	18	326
Railway.....	C. F. Buschner.....	227,729	May 18	749	211	17	1121
Railway and farm gate.....	C. A. Daniels.....	225,805	Mar. 23	986	283	17	655
Railway and tramway track gage.....	W. F. Goodhue.....	223,225	Jan. 6	18	5	17	6



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Railway-brake. Automatic.....	A. S. Vogt.....	231,511	Aug. 24	1051	295	18	437
Railway cattle-gate.....	D. Hamman.....	228,459	June 9	354	97	17	1293
Railway-chair.....	J. H. Collingwood.....	234,458	Nov. 16	789	212	18	1134
Railway column. Elevated.....	F. A. Williams.....	224,567	Feb. 17	692	197	17	347
Railway column. Elevated.....	F. A. Williams.....	224,568	Feb. 17	693	197	17	347
Railway continuous draw-bar.....	T. Hibbert.....	230,549	July 27	1257	354	18	228
Railway cross-tie and rail fastening.....	D. S. Whittenhall.....	227,602	May 11	594	170	17	1087
Railway cross-tie. Metal.....	L. Scofield.....	230,826	Aug. 3	271	77	18	291
Railway-crossing.....	J. B. Carey.....	229,865	July 13	421	116	18	79
Railway-crossing.....	Z. Davis.....	227,154	May 4	80	22	17	991
Railway-crossing.....	C. H. White.....	236,130	Dec. 28	1331	365	18	1525
Railway draw-bar.....	T. C. Salveter.....	224,358	Feb. 10	447	128	17	296
Railway. Elevated.....	R. H. Gilbert.....	228,055	May 25	1135	323 324	17	1196
Railway. Elevated.....	C. E. Powers.....	233,015	Oct. 5	259	71	18	781
Railway. Elevated.....	C. D. Tyler.....	223,415	Jan. 6	233	61	17	42
Railway. Endless-cable.....	S. M. Pettengill.....	230,808	Aug. 3	241	69	18	236
Railway fish-plate.....	W. Butcher.....	234,529	Nov. 16	866	231	18	1147
Railway for travelers.....	J. O. Hughes and J. Eynon.....	235,536	Dec. 14	592	169	18	1388
Railway-frog.....	J. Bralun.....	232,172	Sept. 14	353	99	18	590
Railway-frog.....	J. C. Center.....	225,049	Mar. 2	90	24	17	471
Railway-frog.....	B. R. Starratt.....	233,041	Oct. 5	296	82	18	787
Railway-frog.....	F. C. Weir.....	230,454	July 27	1156	326	18	210
Railway-frog.....	F. C. Weir.....	236,129	Dec. 28	1331	365	18	1525
Railway-frogs. Die for the manufacture of caps for.....	D. C. Pierce.....	224,607	Feb. 17	741	210	17	355
Railway-gate.....	S. L. P. Garrett.....	226,299	Apr. 6	174	50	17	777
Railway-gate.....	C. H. Young.....	230,162	July 20	769	214 215	18	145
Railway-head.....	C. W. Anderson.....	223,629	Jan. 20	525	141	17	113
Railway-heads. Stop-motion for.....	H. T. Spencer.....	228,407	June 1	274	78	17	1271
Railway-joint.....	R. E. Greenwell.....	227,519	May 11	497	143	17	1071
Railway-joint.....	J. W. Hudson.....	227,530	May 11	509	146	17	1073
Railway-joint.....	C. R. Schellert.....	223,249	Jan. 6	52	12	17	11
Railway-joints. Angle-splice for.....	J. D. Hawks.....	228,347	June 1	213	60	17	1262
Railway. Portable.....	N. W. Condict, Jr.....	229,674	July 6	184	51	18	36
Railway. Portable.....	N. W. Condict, Jr.....	233,477	Oct. 19	855	235	18	894
Railway-rail.....	R. N. Allen.....	225,910	Mar. 30	1105	315	17	689
Railway-rail.....	J. H. Collingwood.....	229,522	July 6	15	4	18	10
Railway-rail.....	M. B. Egbert.....	226,048	Mar. 30	1284	362	17	716
Railway-rail.....	F. Hoffmann.....	229,410	June 29	1507	416	17	1484
Railway-rail.....	H. V. and F. A. Piaget.....	230,811	Aug. 3	244	70	18	287
Railway-rail.....	A. C. Vaughan.....	226,811	Apr. 20	773	217	17	897
Railway-rail ends into billets, &c. Working.....	S. W. Baldwin.....	227,946	May 25	1006	289	17	1173
Railway-rail fish-joint.....	L. B. Tyng.....	223,260	Jan. 6	64	16	17	13
Railway-rail joint.....	S. Harris.....	227,896	May 25	954	273	17	1165
Railway-rail joint.....	W. F. Morgan.....	231,837	Aug. 31	1441	405	18	505
Railway-rail joint.....	W. Neff.....	227,917	May 25	976	279	17	1168
Railway-rail joint.....	C. Reese.....	224,476	Feb. 10	577	166	17	317
Railway-rail joint.....	J. F. Rice.....	231,851	Aug. 31	1463	411	18	509
Railway-rail splice-joint.....	J. D. Felthousen.....	230,626	Aug. 3	31	10	18	252
Railway-rail-supporting device.....	T. W. Travis.....	224,808	Feb. 24	994	282	17	412
Railway-rail-testing machine.....	G. Webb.....	223,567	Jan. 13	442	119 120	17	90
Railway-rails and rolling the pieces into merchantable bars. Machine for splitting old.....	F. Holub and C. S. Locke.....	227,010	Apr. 27	1033	287	17	949
Railway-rails. Device for securing.....	F. A. Williams.....	235,320	Dec. 7	302	85	18	1331
Railway-rails. Roll for forming billets from steel.....	F. B. Davis.....	226,982	Apr. 27	1001	278	17	944
Railway safety-switch apparatus.....	C. H. Jackson.....	223,516	Jan. 13	379	101	17	79
Railway-signal.....	R. B. Ireland.....	225,137	Mar. 2	181	51	17	487
Railway-signal.....	C. H. Jackson.....	230,418	July 27	1105	311	18	202
Railway-signal.....	J. A. Paul.....	233,367	Oct. 19	725	198 199	18	873
Railway-signal.....	A. J. Rose.....	228,683	June 8	620	167	17	1332
Railway-signal apparatus.....	O. Gassett and I. Fisher.....	233,612	Oct. 26	1029	286 287	18	933
Railway-signal apparatus.....	W. H. Shuey.....	229,921	July 13	478	132 133 134	18	88
Railway-signal apparatus. Electric.....	O. Gassett.....	228,187	June 1	29	10, 11	17	1232
Railway-signal apparatus. Electrical.....	O. Gassett.....	234,707	Nov. 23	1108	298	18	1194
Railway-signal. Electric.....	O. Gassett.....	228,455	June 8	349	96	17	1292
Railway-signal. Electric.....	H. Leblanc and E. V. A. Loisean.....	229,321	June 29	1402	384	17	1470
Railway-signal. Electric.....	C. J. Means.....	234,315	Nov. 9	596	162	18	1094
Railway-signal. Electric.....	T. A. B. Putnam.....	229,009	June 22	1057	287	17	1413
Railway-signal. Electric.....	T. A. B. Putnam.....	230,494	July 27	1199	337 338	18	218
Railway-signal. Electric.....	A. L. Russell.....	235,025	Nov. 30	1504	405	18	1265
Railway-signal. Electric.....	C. D. Tisdale.....	229,285	June 29	1354	371	17	1464
Railway-signal. Electrical.....	I. Fisher.....	235,145	Dec. 7	100	30	18	1298
Railway-signal. Electrical.....	J. A. Paul.....	233,368	Oct. 19	727	199	18	873
Railway-signal. Electrical.....	T. A. B. Putnam.....	229,911	July 13	466	129	18	86
Railway-signal. Electrical.....	A. Wrigley.....	225,961	Mar. 30	1181	335 336	17	700
Railway-signal. Electro-magnetic.....	T. S. Hall.....	232,025	Sept. 7	180	48, 49	18	554
Railway-signal. Pneumatic.....	J. A. Emery.....	234,552	Nov. 16	899	241 242	18	1153
Railway-signal. Pneumatic.....	D. and T. Morris.....	228,550	June 8	469	126	17	1310
Railway-signaling apparatus.....	H. Ely, Jr.....	235,755	Dec. 21	855	239	18	1438
Railway-signaling apparatus.....	R. B. Ireland and W. H. McDonald.....	224,692	Feb. 17	834	237	17	371
Railway-signaling apparatus.....	F. J. Wenker.....	234,636	Nov. 16	1013	270 271	18	1172
Railway-signaling apparatus. Electric.....	O. Gassett.....	233,746	Oct. 26	1181	328	18	959
Railway-spike.....	H. Greer.....	236,020	Dec. 28	1194	330	18	1503
Railway-stations. Stand-pipe for.....	G. B. Van Vorst and J. A. Pratt.....	223,416	Jan. 6	234	62	17	43

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Railway-switch	J. Brahn	232,171	Sept. 14	351	98	18	589
Railway-switch	J. B. Carey	229,671	July 6	181	50	18	35
Railway-switch	J. B. Carey	229,866	July 13	422	117	18	79
Railway-switch	W. P. Dodson	233,146	Oct. 12	436	119	18	816
Railway-switch	W. P. Dodson	233,605	Oct. 26	1023	284	18	932
Railway-switch	C. Donkersley	224,157	Feb. 3	208	60, 61	17	238
Railway-switch	W. R. Fearn	235,421	Dec. 14	445	126	18	1363
Railway-switch	T. H. Finnell	223,587	Jan. 13	462	125	17	93
Railway-switch	S. Goodhne	234,977	Nov. 30	1448	{ 389 390 }	18	1256
Railway-switch	J. P. Meredith and J. S. Lyon	224,460	Feb. 10	560	161	17	315
Railway-switch	W. Miller	227,639	May 18	637	183	17	1104
Railway-switch	J. M. Moore	228,665	June 8	602	161	17	1330
Railway-switch	S. B. Nickum	226,342	Apr. 6	220	64	17	786
Railway-switch	E. Parker	230,147	July 20	751	211	18	140
Railway-switch	J. T. Richardson	229,754	July 6	281	79	18	50
Railway-switch	G. W. Shorer	231,197	Aug. 17	707	199	18	375
Railway-switch	T. Solt	234,436	Nov. 16	760	204	18	1130
Railway-switch	W. Spielman	234,341	Nov. 9	623	170	18	1099
Railway-switch	C. W. Tarbox	224,054	Feb. 3	97	28, 29	17	219
Railway-switch	T. S. Taylor	224,310	Feb. 10	392	110	17	288
Railway-switch	E. Witsil	234,103	Nov. 2	331	91	18	1042
Railway-switch	M. Wood	230,095	July 13	668	187	18	118
Railway switch and signal apparatus. Pneumatic	H. Turner	226,637	Apr. 20	596	166	17	867
Railway-switch. Automatic	J. S. Clements	236,136	Dec. 28	1339	367	18	1526
Railway-switch. Automatic	R. P. Garsed	234,173	Nov. 9	433	117	18	1066
Railway-switch. Automatic	J. H. Wait	223,559	Jan. 13	428	114	17	88
Railway-switch bar	G. W. Whipple	225,034	Mar. 2	66	19	17	467
Railway switch. Elevated	W. W. Riley	227,996	May 25	1076	306	17	1183
Railway-switch lever	S. B. Nickum	225,483	Mar. 16	599	174	17	580
Railway-switch. Safety automatic	O. Pagan	229,745	July 6	268	75, 76	18	48
Railway-switch. Safety-locking	F. W. and W. W. Brierley	231,648	Aug. 31	1220	342	18	471
Railway-switch signal	A. H. Baker	229,075	June 22	1123	305	17	1423
Railway-switch signals. Circuit-controlling apparatus for	O. Gasset and I. Fisher	232,344	Sept. 21	569	157	18	633
Railway-switch stand and lock	B. B. De Vout	225,747	Mar. 23	915	266	17	644
Railway-switch. Street	I. A. Chandler	224,874	Feb. 24	1067	305	17	424
Railway switch. Street	I. A. Chandler	224,875	Feb. 24	1068	305	17	424
Railway system	E. M. Boynton	232,109	Sept. 14	281	79	18	578
Railway-tie	W. Brown	231,755	Aug. 31	1345	378	18	490
Railway-tie	G. H. Gilman	235,078	Dec. 7	20	5	18	1284
Railway-tie	S. F. Seely	235,706	Dec. 21	799	225	18	1429
Railway-tie. Iron	W. C. Lutz	233,528	Oct. 19	913	251	18	904
Railway-tie. Metallic	F. A. Williams	235,321	Dec. 7	303	86	18	1332
Railway ties and iron in track-laying. Machine for handling	P. Burns	231,897	Sept. 7	23	5	18	528
Railway time-signal	A. P. Burroughs	230,738	Aug. 3	164	48	18	273
Railway time-signal	A. M. Lane	234,296	Nov. 9	576	157	18	1091
Railway time-signal	H. A. Wayne	234,634	Nov. 16	1009	269	18	1171
Railway-track	D. E. Dutrow	229,526	July 6	21	5	18	11
Railway track and car	E. M. Boynton	230,999	Aug. 10	469	{ 133 134 }	18	330
Railway-track. Portable	T. F. Krajewski	235,786	Dec. 21	888	248	18	1444
Railway-tracks. Apparatus for cleaning	M. E. Laporte	235,539	Dec. 14	596	170	18	1389
Railway-tracks. Apparatus for laying	T. Adams	228,505	June 8	412	113	17	1301
Railway-tracks. Apparatus for laying	T. Adams	229,229	June 29	1287	353	17	1455
Railway-tracks. Electro-magnetic switch apparatus for	T. S. Hall	234,031	Nov. 2	255	69	18	1028
Railway-train arrester. Automatic	J. Wood	230,097	July 13	671	188	18	118
Railway-train indicator	G. F. Holmes	230,417	July 27	1103	310	18	202
Railway-train signal	A. H. Catlin	228,034	May 25	1112	316	17	1189
Railway turn-table	H. T. Stock and W. Royce	235,312	Dec. 7	292	82	18	1330
Railway turn-table. Elevated	C. Donkersley	225,002	Mar. 2	22	7	17	460
Railway turn-out	J. W. Kramer	227,795	May 18	820	232	17	1132
Railway. Wire-cable	W. Eppelsheimer	224,284	Feb. 10	363	104	17	283
Railways. Automatic switch for wire-rope	J. W. C. Rhind	228,932	June 15	949	258	17	1389
Railways. Deadening noise on	E. Rider	229,641	July 6	147	41	18	30
Railways. Permanent way for	A. Greig	226,308	Apr. 6	184	53, 54	17	779
Railways. Permanent way for	W. Rainbow	230,816	Aug. 3	250	72	18	288
Railways. Permanent way for	G. Schwartzkopff	227,705	May 18	716	202	17	1116
Rain-falls. Precipitating	D. Ruggles	230,067	July 13	642	179	18	113
Rake:							
See Garden-rake.	Mannre-rake.						
Harvester-rake.	Mash-rake.						
Horse-rake.	Stalk-rake.						
Lawn-rake.							
Rake and tedder. Combined	R. J. Colvin	227,734	May 18	754	{ 212 213 }	17	1121
Rakes. Manufacture of	W. H. Kretsinger	233,679	Oct. 26	1107	308	18	946
Rakes. Manufacture of solid-shank cast-steel	J. B. Hamblin	227,521	May 11	500	{ 143 144 }	17	1071
Ram and water-wheel. Hydraulic	G. Yellott	234,368	Nov. 9	653	{ 177 178 }	18	1104
Range	G. F. Filley	235,349	Dec. 14	360	99	18	1349
Range	G. F. Filley	235,350	Dec. 14	361	99	18	1349
Range	D. H. Nation	226,340	Apr. 6	218	63	17	785
Range	D. H. Nation	228,268	June 1	136	38	17	1248
Range	D. H. Nation	228,269	June 1	137	38	17	1248
Range	D. H. Nation	228,270	June 1	137	38	17	1248
Range	G. R. Prowse	235,100	Dec. 7	41	13	18	1288
Range. Cooking	W. Young	233,653	Oct. 26	1080	{ 300 301 }	18	941
Range water-back	J. G. Weldon	227,334	May 4	278	81	17	1023
Ratchet-drill	W. H. Richards	231,361	Aug. 17	883	249	18	403

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Ratchet-regulator for transoms, &c	J. T. O'Doneghue	225,761	Mar. 23	933	270	17	646
Rattan-machine	N. H. Richardson	231,360	Aug. 17	881	248	18	403
Rattan. Machine for working	A. Moritz	224,212	Feb. 3	273	79	17	249
Razor	J. Heitner	229,127	June 22	1179	323	17	1431
Razor	C. D. Moody	228,829	June 15	840	229	17	1373
Razor	C. J. J. and P. C. Sadler	234,070	Nov. 2	296	82	18	1035
Razor. Safety	F. and O. F. Kampfe	228,904	June 15	919	250	17	1384
Razor-strop	C. T. Shafer	235,577	Dec. 14	642	182	18	1396
Razor-strop	J. R. Torrey	229,342	June 29	1432	394	17	1474
Reaction and direct-action engine	C. M. T. Du Motay and L. F. Beckwith	225,245	Mar. 9	311	89		
Reading-rest	W. H. Berry	223,271	Jan. 6	75	19	17	15
Reaming-bit. Expansible	A. Arntz	225,265	Mar. 9	327	96	17	526
Reaper	B. Blood	233,468	Oct. 19	844	232	18	892
Reaper	F. J. Lampton	233,259	Oct. 12	567	157	18	839
Reaper and harvester binding attachment	J. D. Heebner	227,774	May 18	796	225	17	1128
Reaper. Swathing	B. Blood	234,651	Nov. 23	1044	281		
Reapers and mowers. Rake-reel for	J. Amstutz	225,315	Mar. 9	404	117	17	537
Reapers. Attachment for	G. W. Looney, Sr.	232,648	Sept. 28	923	255	18	700
Reaping and binding machine	C. Lidren	230,792	Aug. 3	922	64, 65	18	283
Reaping and mowing machine	D. Forrest	230,263	July 20	895	254	18	162
Reaping and mowing machine	E. Lachèze	232,513	Sept. 21	775	214	18	667
Reaping and mowing machine	A. Rank	235,379	Dec. 14	397	109	18	1335
Reaping-machine	A. C. Scarr	235,903	Dec. 28	1051	290		
Reclining-chair	J. Clough	228,869	June 15	884	241	17	1380
Reclining-chair	D. B. Hartley	229,701	July 6	215	59	18	40
Reclining-chair	P. Herbold, Jr.	235,239	Dec. 7	214	58	18	1316
Reclining-chair	T. G. Maguire	228,263	June 1	130	36	17	1247
Reclining-chair. Folding	J. Allen	224,319	Feb. 10	401	113	17	289
Reclining-chair foot-rest	R. and W. McCabe	225,230	Mar. 9	295	114		
Recorder:							
See Steam-engine recorder.							
Rectifying spirits. Apparatus for	E. F. Prentiss	228,113	May 25	1198	342	17	1204
Reed block. Free-	M. O. Nichols	235,556	Dec. 14	615	176	18	1392
Reed-hook and picking-comb. Combined	T. T. Harris and J. J. Hardin	234,981	Nov. 30	1453	391	18	1257
Reel:							
See Balting-reel. Rope-reel.							
Fisherman's reel. Silk-reel.							
Fishing-reel. Ticket-reel.							
Harvester-reel. Trolling-reel.							
Hose-reel. Type-writing-machine reel.							
Measuring-reel. Wire-coiling reel.							
Pump-reel.							
Rolling-mill reel.							
Reel	H. Prichard	235,017	Nov. 30	1492	402	18	1264
Reflector	M. C. Meigs	231,600	Aug. 24	1156	323	18	454
Reflector	M. C. Meigs	231,601	Aug. 24	1156	323	18	454
Reflector	M. C. Meigs	231,602	Aug. 24	1157	323	18	454
Reflector	W. H. Smith	235,306	Dec. 7	287	81		
Reflector	S. B. H. Vance	229,212	June 22	1266	348	17	1443
Reflector	J. J. Walton	232,092	Sept. 7	257	71	18	566
Reflector. Lamp	C. H. Farley	231,159	Aug. 17	654	185	18	367
Reflector. Lamp	F. E. Meyer	226,412	Apr. 13	304	88	17	811
Refrigerating and ice-making apparatus	C. P. G. Lindo	228,364	June 1	229	65	17	1264
Refrigerating and making ice. Process of and apparatus for	B. Maillefert	231,824	Aug. 31	1429	402	18	503
Refrigerating apparatus	J. J. Coleman	226,281	Apr. 6	150	43	17	773
Refrigerating apparatus	T. C. Eastman	224,521	Feb. 17	634	183	17	338
Refrigerating apparatus	W. A. Lighthall	224,785	Feb. 24	971	276	17	408
Refrigerating apparatus	J. C. Mack	227,553	May 11	532	154	17	1077
Refrigerating apparatus for hydrants and street-fountains	G. F. Blinsinger	225,098	Mar. 2	140	40	17	480
Refrigerating butter-carrier	W. E. Rutherford	232,549	Sept. 21	813	224	18	674
Refrigerating-can	P. S. Smoot	231,367	Aug. 17	888	250	18	404
Refrigerating-cover	A. North	227,290	May 4	226	67	17	1015
Refrigerating process and apparatus	C. T. Du Motay	228,487	June 8	392	109	17	1299
Refrigerating purposes. Apparatus for producing cold for	K. Knott, Jr.	234,788	Nov. 23	1204	325	18	1209
Refrigerating rooms. Apparatus for	E. A. Hayt	235,870	Dec. 28	1011	280		
Refrigerating-rooms, &c. Construction of	J. Tiffany	236,111	Dec. 28	1307	360	18	1521
Refrigerating show-case	J. Hagmann and F. Sauer	226,169	Apr. 6	24	7	17	750
Refrigerator	H. Brüggén	224,383	Feb. 10	474	136	17	301
Refrigerator	C. Callahan	235,068	Dec. 7	10	3	18	1282
Refrigerator	A. J. Chase	229,956	July 13	520	144	18	94
Refrigerator	W. F. Clapp	225,109	Mar. 2	151	43	17	482
Refrigerator	S. B. Clemmens	234,457	Nov. 16	787	211	18	1134
Refrigerator	H. A. Duc, Jr.	224,282	Feb. 10	360	103	17	282
Refrigerator	J. F. Ferguson	226,993	Apr. 27	1015	281	17	946
Refrigerator	J. C. W. Forrester	232,341	Sept. 21	564	156		
Refrigerator	G. W. Freeman	223,499	Jan. 13	361	96	17	77
Refrigerator	W. Greth	230,771	Aug. 3	199	58	18	279
Refrigerator	J. A. Halo and W. R. Ramsey	225,595	Mar. 16	723	213	17	602
Refrigerator	J. M. Harrop	233,243	Oct. 12	549	152	18	837
Refrigerator	E. H. Hughes	228,759	June 15	745	205	17	1361
Refrigerator	C. P. Jackson	231,324	Aug. 17	845	238	18	397
Refrigerator	W. Keech	233,772	Oct. 26	1208	335	18	964
Refrigerator	E. P. Koontz	225,063	Mar. 2	102	29	17	474

Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Refrigerator .....	L. Loiselie .....	225,992	Mar. 30	1216	344	17	706
Refrigerator .....	T. W. H. Moseley and V. Koch .....	225,629	Mar. 16	763	225	17	609
Refrigerator .....	J. H. Porcupile .....	224,222	Feb. 3	235	82	17	251
Refrigerator .....	D. S. Reed .....	231,612	Aug. 24	1167	326	18	455
Refrigerator .....	J. D. Richardson .....	225,669	Mar. 23	1052	301	17	666
Refrigerator .....	D. C. Sanford .....	223,764	Jan. 20	667	179	17	135
Refrigerator .....	C. H. Saybelt .....	229,277	June 29	1342	368	17	1462
Refrigerator .....	G. E. Seiple .....	235,906	Dec. 23	1054	291	18	1480
Refrigerator .....	L. C. Sheldon .....	224,360	Feb. 10	449	129	17	297
Refrigerator .....	R. Spencer .....	229,059	June 22	1104	300	17	1420
Refrigerator .....	J. H. Stiffler .....	235,713	Dec. 21	806	227	18	1431
Refrigerator .....	E. T. Timanus .....	236,112	Dec. 28	1308	360	18	1521
Refrigerator .....	C. Toope .....	235,591	Dec. 14	658	186	18	1399
Refrigerator .....	J. H. Wickes .....	230,376	July 20	1019	238	18	182
Refrigerator and dumb-waiter. Combined .....	C. E. Stewart .....	231,369	Aug. 17	890	251	18	405
Refrigerator and sideboard. Combined .....	E. B. Jewett .....	224,781	Feb. 24	961	273 274	17	407
Refrigerator bottle-rack .....	C. W. Mitchell .....	232,998	Oct. 5	241	66	18	778
Refrigerator-building .....	T. J. and E. H. Hughes .....	233,621	Oct. 26	1039	289	18	935
Refrigerator-building .....	J. G. Müller .....	233,945	Nov. 2	135	37	18	1009
Refrigerator-building .....	J. J. Schillinger .....	233,030	Oct. 5	277	76	18	784
Refrigerator-building .....	H. Smith, Jr. .....	224,048	Feb. 3	86	26	17	218
Refrigerator-car .....	W. M. Babbott and D. Smith .....	227,874	May 25	926	265	17	1161
Refrigerator-car .....	C. W. Cooper .....	230,615	Aug. 3	22	6, 7	18	251
Refrigerator-car .....	S. Hughes .....	229,611	July 6	118	32	18	26
Refrigerator packing-box .....	J. Doeling .....	230,252	July 20	884	250	18	160
Refrigerators and milk-bureaus. Combined extension-shelf and portable door for closing openings in .....	J. A. Baldwin .....	231,643	Aug. 31	1216	341	18	470
Refrigerators, &c. Water-seal cup for waste-pipes for .....	S. Gray .....	234,979	Nov. 30	1452	390	18	1256
Register:							
See Billiard time-regis- Grain-register.							
tor. Hot-air register.							
Cash-register. Passenger-register.							
Check-register. Pocket-register.							
Counting-register. Telephone-call register.							
Fare-register.							
Register-border .....	A. H. Tingley .....	225,907	Mar. 23	1088	311	17	672
Register foot-rest .....	B. Y. Conklin .....	231,402	Aug. 24	933	263	18	419
Registering-machine .....	W. N. Durant .....	231,158	Aug. 17	652	185	18	368
Regulator:							
See Clock - pendulum Gas-pressure regulator.							
regulator. Grain-drill feed-regulator.							
Damper-regulator. Heat-regulator.							
Drafft-regulator. Lamp-regulator.							
Electric-light regu- Pressure-regulator.							
lator. Pump-regulator.							
Feed-water regula- Ratchet-regulator.							
tor. Speed-regulator.							
Gas-regulator. Watch-regulator.							
Rein. Bridle and check- .....	E. B. Williams .....	228,152	May 25	1242	352	17	1211
Rein-holder .....	J. D. Bentley .....	225,739	Mar. 23	901	262	17	642
Rein-holder .....	L. Grape .....	228,060	May 25	1142	325	17	1194
Rein-holder .....	J. C. Lake .....	233,521	Oct. 19	905	249	18	903
Rein-holder .....	A. Lay .....	230,557	July 27	1265	357	18	229
Rein-holder .....	W. J. Morgan .....	224,711	Feb. 17	849	242	17	374
Rein-holder .....	A. Warth .....	228,705	June 8	642	174	17	1335
Rein-holder .....	S. M. Wright .....	227,871	May 18	899	256	17	1145
Rein-holder. Automatic .....	P. W. Nelson .....	233,110	Oct. 12	392	107	18	809
Rein holder. Elastic check- .....	W. P. Emmert .....	223,440	Jan. 13	288	76	17	65
Rein holder for harness. Check- .....	J. W. Cooper .....	226,979	Apr. 27	998	277	17	943
Rein terret. Guide- .....	T. S. Lewis .....	232,193	Sept. 14	378	105	18	594
Relay .....	W. L. Voelker .....	236,122	Dec. 28	1323	363	18	1524
Relishing-machine .....	E. R. Gay .....	223,500	Jan. 13	361	96	17	77
Rendering fat. Apparatus for .....	A. F. Miller and R. E. Gross .....	229,446	June 29	1548	426	17	1490
Reservoir. Hot-water .....	D. E. Rice .....	223,951	Jan. 27	909	242	17	184
Rest. Self-adjusting anti-sparrow .....	T. B. Dougherty .....	224,520	Feb. 17	633	163	17	338
Return-crate .....	R. E. Morey .....	224,939	Feb. 24	1131	323	17	435
Reverberatory furnace .....	J. G. McCormick .....	234,194	Nov. 9	453	123	18	1070
Reversing device. Automatic .....	G. L. Shorey .....	232,308	Sept. 14	515	144	18	618
Revolving chair. Double .....	L. Holl .....	229,704	July 6	220	60	18	41
Revolving screen .....	L. J. Bennett .....	225,206	Mar. 9	264	76	17	515
Rheumatism remedy .....	P. J. Welch .....	225,248	Mar. 9	314		17	523
Ribbon-holder .....	L. M. Chipley .....	224,581	Feb. 17	709	202	17	350
Ribbon. Wire stiffening- .....	T. Kohn .....	231,176	Aug. 17	680	192	18	371
Rice-cleaner .....	G. H. Stein .....	228,783	June 15	786	215	17	1366
Rice-hulling mill .....	T. M. Green .....	223,339	Jan. 6	154	40	17	28
Rice-pounder .....	S. Hughes .....	235,535	Dec. 14	591	168 169	18	1388
Riddle and sieve .....	E. Oliver .....	234,605	Nov. 16	977	260	18	1166
Ring:							
See Ear-ring. Key-ring.							
Finger-ring. Nose-ring.							
Galvanic ring. Packing-ring.							
Hamc-ring. Scarf-ring.							
Hog-ring. Spinning-ring.							
Jewelry-ring. Yoke-ring.							
River-banks. Device for protecting .....	D. T. Hedges and G. M. Needham .....	225,522	Mar. 16	644	188	17	587
River-channels. Machine for deepening .....	T. B. Taylor .....	227,595	May 11	585	167	17	1085
River-channels of sediment and forming levees. Re- .....	N. Sewell .....	235,967	Dec. 28	1136	314	18	1493
lieving							
Rivers, &c. Apparatus for establishing permanent .....	W. C. Allison and J. Hoskin .....	231,698	Aug. 31	1274	358	18	470
channels in							
Rivers navigable. Device for rendering .....	H. Haupt .....	228,633	June 8	572	152	17	1325
Rivet .....	E. P. Farnum .....	232,232	Sept. 14	453	125	18	607

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Rivet or eyelet setting machine .....	C. M. Platt and W. W. Bradley .....	229,459	June 29	1563	431	17	1492
Rivet. Tubular .....	M. Bray .....	227,673	May 18	678	193	17	1110
Rivet. Tubular .....	M. and M. N. Bray .....	227,092	May 4	2	1	17	979
Rivets. Manufacture of tubular .....	G. W. Tucker .....	228,423	June 1	290	82	17	1273
Riveting-machine .....	J. F. Allen .....	229,795	July 13	342	95	18	67
Riveting-tool .....	E. P. Farnum .....	229,688	July 6	202	56	18	38
Riveting. Uniting metal plates by .....	J. R. Robinson .....	230,964	Aug. 10	430	124	18	324
Road-engine .....	T. Aveling .....	228,588	June 8	520	139	17	1317
Road-engine .....	F. L. Fairchild .....	225,695	Mar. 23	855	{ 248 249 }	{ 17 18 }	{ 634 1271 }
Road-engine .....	C. H. Warrington .....	235,051	Nov. 30	1535	413	18	1271
Roadway and tramway .....	C. Bremerkamp .....	223,431	Jan. 13	276	73	17	63
Roaster:							
See Coffee-roaster. Peanut-roaster. Nut-roaster.							
Roasting and chloridizing furnace .....	H. W. Adams .....	232,798	Oct. 5	1	1	18	739
Rock and coal drilling machine .....	J. Ross .....	234,147	Nov. 9	393	147	18	1059
Rock-crusher .....	E. Coleman .....	223,581	Jan. 13	455	{ 123 124 }	{ 17 18 }	{ 92 92 }
Rock-drill .....	J. Brown .....	223,474	Jan. 13	330	88	17	71
Rock-drill .....	J. A. Cowles .....	230,863	Aug. 10	321	95	18	308
Rock-drill .....	J. G. Cranston .....	223,888	Jan. 27	836	223	17	173
Rock-drill .....	H. W. Fleming .....	231,785	Aug. 31	1380	369	18	496
Rock-drill .....	S. Russey .....	232,609	Sept. 28	885	{ 244 245 }	{ 18 18 }	{ 693 693 }
Rock-drill .....	W. L. Neill .....	226,539	Apr. 13	461	130	17	835
Rock-drill .....	G. P. Schaurer .....	227,062	Apr. 27	1102	304	17	959
Rock-drill .....	L. B. Stone .....	229,485	June 29	1600	441	17	1497
Rock-drill .....	A. W. White .....	225,190	Mar. 2	233	65, 66	17	496
Rock-drill bit .....	J. Fleming .....	224,412	Feb. 10	506	145	17	306
Rock-drill carriage .....	N. W. Horton .....	227,899	May 25	958	{ 274 275 }	{ 17 18 }	{ 1165 1165 }
Rock-drill. Electrical .....	A. G. Holcombe and C. A. Cheever .....	235,947	Dec. 28	1103	306	18	1489
Rock-drill. Electrical .....	A. G. Holcombe and C. A. Cheever .....	235,948	Dec. 28	1110	307	18	1489
Rock-drill. Electro-magnetic .....	C. E. Ball .....	235,195	Dec. 7	160	45	18	1308
Rock-drill holes. Tool for clearing .....	W. S. Moses .....	230,145	July 20	752	210	18	140
Rock-drill. Rotary .....	J. Atkinson .....	229,074	June 22	1122	305	17	1423
Rock-drill. Steam .....	G. M. Githens .....	228,056	May 25	1137	324	17	1193
Rock-drill. Steam .....	J. C. Githens .....	233,501	Oct. 19	877	243	18	898
Rock-drill. Steam .....	J. C. Githens .....	235,080	Dec. 7	21	6, 7	18	1284
Rock-drill support and clamp .....	H. Richmann .....	231,238	Aug. 17	756	212	18	382
Rock-drills and earth-augers. Machine for operating .....	G. Taylor .....	228,418	June 1	285	80, 81	17	1272
Rock-drills. Device for the support of steam .....	J. C. Githens .....	235,079	Dec. 7	20	6	18	1284
Rock-drilling apparatus .....	H. Richmann .....	233,020	Oct. 5	263	73	18	781
Rock-drilling machine .....	S. G. Bryer .....	227,878	May 25	932	267	17	1162
Rock-drilling machine .....	R. Magill .....	227,908	May 25	966	277	17	1167
Rock-drilling machine .....	H. Morse .....	223,529	Jan. 13	335	105	17	82
Rock-drilling machine .....	J. Wood .....	228,797	June 15	801	219	17	1368
Rocker for chairs and cradles .....	J. Schater .....	227,181	May 4	106	31	17	995
Rocking attachment to chairs .....	J. Reiche .....	226,420	Apr. 13	313	91	17	812
Rocking-chair .....	R. Griener .....	232,023	Sept. 7	179	47	18	553
Rocking-chair .....	E. Michaels .....	229,733	July 6	257	72	18	46
Rocking-chair .....	T. Moenkedick .....	227,122	May 4	35	10	17	984
Rocking-chair. Adjustable .....	M. F. Bell .....	224,130	Feb. 3	183	52	17	234
Rocking-chair. Folding .....	C. O. Collignon .....	223,995	Feb. 3	25	8	17	207
Rocking-chair. Folding .....	I. H. Dewey .....	227,099	May 4	9	3	17	980
Rocking-chair. Folding .....	C. D. Hyde .....	224,690	Feb. 17	832	236	17	371
Rocking-chair. Folding .....	J. E. Wakefield .....	225,956	Mar. 30	1177	334	17	700
Rocking-chair foot-rest .....	W. H. Bartels .....	231,644	Aug. 31	1217	341	18	470
Rocking-chair. Knockdown .....	E. H. and G. F. Conant .....	229,097	June 22	1147	314	17	1426
Rocking-chair. Platform .....	C. Knöchel .....	224,340	Feb. 10	427	122	17	293
Rocking-chair. Spring .....	W. H. Haman .....	235,232	Dec. 7	208	56	18	1315
Rod:							
See Fishing-rod. Measuring-rod.							
Level-rod. Mowing-machine pitman-rod.							
Lightning-rod.							
Locomotive-engine coupling-rod.							
Rod and pipe cutter .....	F. I. Maulo .....	225,403	Mar. 9	502	145	17	553
Rod and wire cutting and twisting .....	S. G. Wilcox .....	230,377	July 20	1020	288	18	182
Roll. Corrugating .....	W. Wilson, Jr. ....	234,365	Nov. 9	650	177	18	1103
Roll for troops .....	C. Blattner .....	234,225	Nov. 9	493	135	18	1077
Roller:							
See Buffing-roller. Land-roller.							
Corn-husking roll-er. Paper-machine guide-roll-er.							
Curtain-roller. Shade-roller.							
Gate-roller. Shade and curtain roller.							
Inking-roller. Spring-roller.							
Roller-gates. Apparatus for operating .....	H. Allen .....	224,121	Feb. 3	175	50	17	232
Rolling chisels. Machine for .....	G. Parr .....	224,720	Feb. 17	859	245	17	376
Rolling hoop-iron and tube-skelps. Roll for .....	N. King .....	231,493	Aug. 24	1032	289	18	435
Rolling iron, steel, &c. Roll for .....	H. B. Comer .....	227,737	May 18	757	214	17	1122
Rolling machine. Metal .....	S. F. Reynolds .....	226,035	Dec. 28	1267	349	18	1515
Rolling metal. Roll for .....	R. C. Totten .....	228,842	June 15	854	233	17	1375
Rolling-mill .....	C. Erdmann .....	232,602	Sept. 28	876	243	18	691
Rolling-mill .....	W. H. Glover .....	224,420	Feb. 10	515	147	17	307
Rolling-mill .....	W. H. Glover .....	235,679	Dec. 21	762	216	18	1423
Rolling-mill .....	G. Matheson .....	227,636	May 18	633	{ 181 182 }	{ 17 18 }	{ 1101 1101 }
Rolling-mill .....	S. P. M. Tasker .....	228,841	June 15	853	233	17	1375
Rolling-mill reel .....	C. H. Morgan and F. H. Daniels .....	224,838	Feb. 24	1023	{ 291 292 }	{ 17 18 }	{ 417 417 }
Rolling-mill reel .....	C. H. Morgan and F. H. Daniels .....	224,840	Feb. 24	1028	293	17	418



*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Rolling mills. Guide for wire-rod.....	C. H. Morgan and F. H. Daniels....	224,839	Feb. 24	1025	{ 292 293 }	17	417
Rolling mills. Reel for wire-rod.....	C. H. Morgan.....	224,787	Feb. 24	974	276	17	408
Rolling steel bars for mining-drills. Roll for.....	W. A. Sweet.....	228,486	June 8	391	109	17	1299
Roof.....	W. P. Walker.....	230,161	July 20	768	214	18	142
Roof. Composite.....	S. L. Foster and W. H. Benton.....	227,682	May 18	687	196	17	1111
Roof. Composition.....	T. Fugate.....	223,671	Jan. 20	570	153	17	120
Roof composition.....	D. D. Pennoyer.....	224,606	Feb. 17	741	.....	17	355
Roof. Sheet-metal.....	R. G. Sykes.....	225,733	Mar. 23	896	261	17	641
Roofs and pavements. Joint for cement illuminating-tiles for.....	W. J. Fryer, Jr.....	230,931	Aug. 10	394	114	18	319
Roofs. Construction of composite.....	J. Brokenshire.....	235,737	Dec. 21	836	233	18	1435
Roofs. Machine for closing seams in sheet-metal.....	S. Woodhead.....	233,828	Oct. 26	1278	358	18	976
Roofs. Valley and ridge sheets for.....	V. Fischer.....	235,351	Dec. 14	361	100	18	1349
Roofing.....	H. W. Hoeft.....	232,643	Sept. 28	923	254	18	699
Roofing.....	N. U. Walker.....	235,595	Dec. 14	663	187	18	1400
Roofing and paving material.....	C. M. Warren.....	227,080	Apr. 27	1125	.....	17	963
Roofing and paving material.....	C. M. Warren.....	228,960	June 15	977	.....	17	1393
Roofing and paving material.....	C. M. Warren.....	234,442	Nov. 16	767	.....	18	1131
Roofing-cement.....	T. Sparham.....	229,924	July 13	487	.....	18	89
Roofing. Composite tile.....	W. Dale.....	226,983	Apr. 27	1002	278	17	944
Roofing composition.....	G. W. Bender.....	225,094	Mar. 2	137	.....	17	480
Roofing composition.....	C. F. Pearson.....	234,425	Nov. 16	750	.....	18	1128
Roofing composition.....	T. Sparham.....	229,925	July 13	488	.....	18	89
Roofing compound.....	P. Wright.....	230,912	Aug. 10	376	.....	18	315
Roofing fabrics. Manufacture of.....	W. H. Stewart.....	226,461	Apr. 13	364	104	17	820
Roofing machine. Metal.....	W. C. Bell.....	231,982	Sept. 7	136	34	18	546
Roofing, &c. Manufacture of and material for.....	G. S. Page.....	230,148	July 20	755	.....	18	140
Roofing. Metallic.....	J. M. Hess.....	231,317	Aug. 17	837	235	18	396
Roofing-plate. Illuminating.....	J. Jacobs.....	225,837	Mar. 23	1015	292	17	660
Roofing. Thatched.....	C. McClelland.....	233,269	Oct. 12	578	160	18	841
Rope-cutter.....	T. Davies.....	235,416	Dec. 14	438	123	18	1362
Rope-coils. Rack and spool for holding.....	C. J. Le Roy.....	232,733	Sept. 28	1024	252	18	716
Rope-making machine.....	F. Woods.....	235,839	Dec. 21	955	266	18	1457
Rope or line clasp.....	A. L. Pitney.....	230,436	July 27	1129	317	18	206
Rope-reel.....	T. E. Hayes.....	231,796	Aug. 31	1395	394	18	498
Rope-reel.....	C. W. Schmieding and C. G. Udell.....	230,665	Aug. 3	85	24	18	260
Rope-twisting machine.....	C. Van Houten.....	224,058	Feb. 3	101	30	17	220
Rope-yarns from cotton. Making.....	T. H. Dunham.....	227,885	May 25	940	.....	17	1163
Rosette.....	W. P. Greenwood.....	228,887	June 15	901	246	17	1382
Rotary chair.....	A. H. Ordway.....	225,160	Mar. 2	202	57	17	491
Rotary cutter.....	J. C. Marshall.....	235,163	Dec. 7	124	35	18	1302
Rotary drier.....	T. E. Worthington.....	230,980	Aug. 10	450	129	18	327
Rotary engine.....	J. A. Adams.....	223,688	Jan. 20	588	158	17	123
Rotary engine.....	L. J. Baker.....	223,978	Feb. 3	6	2, 3	17	203
Rotary engine.....	F. Bergquest.....	226,829	Apr. 27	815	227	17	914
Rotary engine.....	J. H. Blake.....	228,861	June 15	874	238	17	1378
Rotary engine.....	F. H. Cathcart.....	224,146	Feb. 3	196	56, 57	17	236
Rotary engine.....	C. Chamberlin.....	234,957	Nov. 30	1424	383	18	1252
Rotary engine.....	D. L. Cross.....	231,261	Aug. 17	801	224	18	390
Rotary engine.....	W. N. De Groat.....	224,999	Mar. 2	18	5, 6	17	459
Rotary engine.....	G. W. Dndley.....	236,007	Dec. 28	1178	326	18	1500
Rotary engine.....	G. Jasmagy.....	235,246	Dec. 7	221	60	18	1317
Rotary engine.....	H. Laurence.....	230,880	Aug. 10	342	99	18	310
Rotary engine.....	R. Leuchsening.....	225,226	Mar. 9	290	83	17	519
Rotary engine.....	A. C. Lewis.....	233,260	Oct. 12	569	157	18	840
Rotary engine.....	F. W. Link.....	226,527	Apr. 13	449	126	17	833
Rotary engine.....	A. E. Marshall.....	235,266	Dec. 7	244	67	18	1322
Rotary engine.....	G. W. Miller.....	230,886	Aug. 10	347	{ 100 101 }	18	311
Rotary engine.....	J. H. Newell.....	235,003	Nov. 30	1477	397	18	1261
Rotary engine.....	W. Scott.....	234,206	Nov. 9	472	128	18	1073
Rotary engine.....	W. E. Sudlow.....	223,257	Jan. 6	59	15, 16	17	13
Rotary engine.....	C. S. Tegnander.....	227,319	May 4	259	76	17	1020
Rotary engine.....	H. Thibalt and T. Hawkins.....	230,907	Aug. 10	372	{ 107 108 }	18	315
Rotary engine.....	P., L., and H. Vanbriggles.....	231,871	Aug. 31	1489	418	18	512
Rotary engine.....	E. Waldron.....	225,030	Mar. 2	59	{ 16 17 18 }	17	466
Rotary engine or pump.....	S., D., and J. Barrow.....	231,520	Aug. 24	1061	298	18	439
Rotary engine or pump.....	W. B. Espent.....	232,017	Sept. 7	171	45	18	552
Rotary motor.....	J. R. Cook.....	230,862	Aug. 10	320	94	18	307
Rotary motor.....	C. Krupp.....	228,906	June 15	920	251	17	1385
Rotary steam-engine.....	J. M. Simpson.....	223,547	Jan. 13	415	111	17	85
Rotary steam-engine.....	C. S. Whitney.....	232,793	Sept. 28	1104	302	18	729
Rowing-gear for racing-boats.....	E. A. Bennett.....	230,690	Aug. 3	109	32	18	264
Rowing-machine.....	J. F. Walthour.....	228,845	June 15	856	234	17	1376
Rowlock.....	W. E. Bond.....	234,847	Nov. 30	1291	346	18	1230
Rubber and other gum compounds for surfacing cloth and for other purposes. India.....	C. Y. Beach.....	226,017	Mar. 30	1248	.....	17	710
Rubber bottles, &c. Closing the openings in india.....	T. J. Mayall.....	228,207	June 1	51	16	17	1235
Rubber cloth. Enamelled.....	E. M. Stevens.....	233,296	Oct. 12	616	.....	18	848
Rubber cloth. Machine for preparing light-weight.....	F. E. Aldrich.....	235,117	Dec. 7	64	19	18	1291
Rubber compounds. Manufacture of vulcanized india.....	H. Gerner.....	229,038	June 22	1081	.....	17	1417
Rubber goods. Reclaiming rubber from old and waste vulcanized rubber and utilizing the same in manufacturing.....	J. H. Cheever.....	233,600	Oct. 26	1018	.....	18	931
Rubber, &c. Manufacture of goods made of hard.....	L. Tillinghast.....	229,847	July 13	404	111	18	76
Rubber. Manufacture of substitutes for hard.....	A. B. Allen.....	229,794	July 13	342	.....	18	67
Rubber or other gum cloth and compositions thereof. Manufacture of.....	G. Y. Beach.....	223,874	Jan. 27	821	.....	17	170
Rubber or vulcanite. Manufacture of hard.....	H., O., and M. Traun.....	226,572	Apr. 13	494	.....	17	840

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Rubber. Ornamenting hard	H. O., and M. Traun	228,290	June 1	159	.....	17	1252
Rubber products. Manufacture of vulcanized india-	H. Gerner	229,817	July 13	367	.....	18	70
Rubber. Substitute for hard	G. A. Fudickar	226,844	Apr. 27	833	.....	17	917
Rubber, &c. Treatment of india-	H. Gerner	226,057	Mar. 30	1294	.....	17	718
Rubber with colors. Ornamenting the surfaces of hard	F. A. Nickerson	235,644	Dec. 21	725	.....	18	1417
Rubber with metal. Coating	J. A. Daly	233,144	Oct. 12	434	.....	18	816
Ruches. Machine for making	G. G. Bates	232,437	Sept. 21	628	190	18	652
Ruching-machine	C. Clark	226,719	Apr. 20	680	{ 189 190 }	17	881
Rudder	U. B. Scott	231,623	Aug. 24	1177	329	18	457
Rudder for vessels	F. G. Mareglia	231,595	Aug. 24	1150	321	18	452
Rudders. Raising and lowering ships	R. F. Loper, Jr.	234,594	Nov. 16	968	257	18	1165
Ruffled fabrics. Machine for pressing or creasing	W. Walker	225,667	Mar. 24	806	236	17	613
Rule and bodkin. Combined setting	S. Prevost	233,545	Oct. 19	934	257	18	908
Rule and scale. Combined	B. G. Corser	229,962	July 13	525	{ 145 146 }	18	95
Rule. Graduated measuring	S. Darling	230,619	Aug. 3	26	8	18	251
Rule. Ten-foot extension	W. J. Derickson	224,401	Feb. 10	493	142	17	304
Ruler and pencil-case. Combined	H. T. Cushman	233,203	Oct. 12	500	138	18	828
Ruler. Combination	J. S. Lowe and J. H. Leiter	232,988	Oct. 5	231	64	18	776
Ruler. Parallel	W. A. Ducker	233,737	Oct. 26	1172	326	18	957
Ruler. Parallel	J. H. Harden	230,008	July 13	581	161	18	104
Ruler. Parallel	C. D. Sigsbee	224,962	Feb. 24	1153	330	17	438
Ruling-machine	J. A. Umbach	231,870	Aug. 31	1488	417	18	512
Ruling machine. Paper	W. O. Hickok, A. Cooper, and G. W. Brown	223,912	Jan. 27	863	{ 229 230 }	17	177
Ruling machine. Paper	F. F. Wagner	231,694	Aug. 31	1268	357	18	478
Ruling-machine pen-lifter	J. W. A., and G. F. McAdams	227,030	Apr. 27	1059	294	17	953
Ruling-machines. Pen-clamp bar for	W. O. Hickok	228,072	May 25	1157	329	17	1197
Saccharine substances. Treatment and preparation of	M. Weinrich	234,510	Nov. 16	843	226	18	1144
Saccharine substances. Treatment and preparation of	M. Weinrich	234,511	Nov. 16	846	226	18	1144
Sad-iron	S. L. Story	224,854	Feb. 24	1045	298	17	420
Sad-iron	F. R. Sutton	226,633	Apr. 20	591	165	17	866
Sad-iron and fluting device. Combined	C. A. Babcock	233,830	Nov. 2	2	1	18	987
Sad-iron furnace	M. J. Mosher	227,036	Apr. 27	1065	296	17	954
Sad-iron heater	W. B. Le Noir	223,596	Jan. 13	474	128	17	95
Sad-iron heater	A. C. Macallister	235,092	Dec. 7	34	11	18	1287
Sad-iron heater	H. L. Wells	227,081	Apr. 27	1127	309	17	963
Sad-iron heater and receptacle	J. E. Curtice	228,732	June 15	711	195	17	1356
Saddle	J. Strans	233,816	Oct. 26	1260	352	18	973
Saddle-bags. Blank for	R. T. Pettus	235,013	Nov. 30	1489	401	18	1263
Saddle-bags for physicians' use	C. Willms	233,387	Oct. 19	749	205	18	877
Saddle-blanket	A. D. Martiu	223,523	Jan. 13	388	104	17	81
Saddle. Gig	J. J. Leonhart and L. Werle	226,079	Mar. 30	1318	371	17	721
Saddle. Harness	E. R. Cahoon	224,871	Feb. 24	1063	303	17	423
Saddle. Harness	R. W. Jones	235,949	Dec. 28	1113	307	18	1490
Saddle. Harness	C. Steinbach	225,242	Mar. 9	309	88	17	522
Saddle. Harness	J. P. Zonne	224,503	Feb. 10	604	175	17	322
Saddle-horn	O. Rnarts and J. J. Dubruille	232,763	Sept. 28	1062	290	18	722
Saddle-loop	G. Theobald	223,411	Jan. 6	229	60	17	42
Saddle box-loop. Harness	C. Rosencrans	223,761	Jan. 20	664	179	17	135
Saddle. Military	J. R. Hastings	232,712	Sept. 28	1002	276	18	712
Saddle. Pack	T. A. Kelly	232,729	Sept. 28	1019	281	18	715
Saddle-tree fork	G. A. Mitterdorf	224,709	Feb. 17	847	241	17	374
Saddle tree. Harness	E. R. Cahoon	223,989	Feb. 3	19	7	17	206
Saddle tree. Harness	E. R. Cahoon and N. Teas	223,990	Feb. 3	20	7	17	206
Saddle tree. Side	J. Eberle	223,843	Jan. 27	777	208	17	163
Safe	G. Berkmyer and J. J. Brown	224,990	Mar. 2	9	3	17	458
Safe	J. A. Chabot and F. H. Charter	235,208	Dec. 7	183	50	18	1311
Safe	M. Mosler	229,905	July 13	461	{ 127 128 }	18	85
Safe. Burglar-proof	H. Eichbaum	224,409	Feb. 10	502	144	17	305
Safe. Burglar-proof	N. Huettner	222,036	Sept. 7	194	52	18	556
Safe. Fire-proof	J. Grove	223,502	Jan. 13	363	97	17	77
Safe for provisions, &c.	D. N. Smith	225,653	Mar. 16	788	231	17	613
Safe. Housekeeper's	E. H. Sturges	224,490	Feb. 10	592	171	17	320
Safe. Provision	A. Osborne	230,195	July 20	806	228	18	149
Safe. Sectional kitchen	C. Spier	232,772	Sept. 28	1072	293	18	724
Safes and vaults. Constructing metal	A. J. Klein	231,231	Aug. 17	749	210	18	381
Safes, doors, shutters, &c. Fire-proof material for lining	N. C. Fowler	231,662	Aug. 31	1234	.....	18	473
Safety-hook	W. F. Dillaby	227,221	May 4	157	46	17	1003
Safety-pin	A. M. Smith	226,460	Apr. 13	364	104	17	819
Safety-pipe trap or valve	T. Clements	229,094	June 22	1145	312	17	1426
Sailor's ditty-box	R. D. Hitchcock, Jr., and G. H. Read	225,377	Mar. 9	470	137	17	548
Sails. Hoisting storm	S. P. Willeby	226,142	Mar. 30	1388	392	17	733
Sails. Reefing	J. Gondie	235,868	Dec. 28	1009	279	18	1473
Salt-cellar and pepper-box	W. C. Beattie	225,785	Mar. 23	962	277	17	651
Salt-evaporator	J. P. Sinclair	225,080	Mar. 2	124	35	17	478
Salt. Manufacture of	W. W. Elmer	235,143	Dec. 7	98	29	18	1298
Salt. Manufacturing fine	T. Higgin	224,014	Feb. 3	49	15	17	211
Salt-wells. Cleaning	J. Mason	224,024	Feb. 3	60	18	17	213
Salter. Stock	P. Hatfield	232,124	Sept. 14	295	83	18	580
Salvo	C. G. Annan	229,937	July 13	500	.....	18	91
Salvo	J. Bemis	228,724	June 15	704	.....	17	1355
Salvo	F. L. Crandall	227,958	May 25	1031	.....	17	1177
Salvo	J. Myers	221,031	Feb. 3	67	.....	17	215
Salvo	W. L. Sharetts	229,014	June 22	1061	.....	17	1414
Sample-exhibitor	G. S. Griffith, Jr.	232,639	Sept. 28	920	253	18	699
Sample-exhibitor	D. K. Hoeker	231,778	Nov. 23	1194	{ 322 323 }	18	1207
Sample-exhibitor	L. A. Ridgway	232,064	Sept. 7	224	62	18	561
Sand-band	F. M. Hurtle	228,761	June 15	747	206	17	1361

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr's	Vol.	Page.
Sand-band	L. R. Lupton	233,266	Oct. 12	574	259	18	840
Sand-band	S. Marsh	223,935	Jan. 27	896	238	17	182
Sand-band	G. E. Purple	226,787	Apr. 20	751	209	17	893
Sand-paper holder	C. M. Lothrop	227,438	May 11	408	119	17	1055
Sand-trap	J. T. Sell	230,579	July 27	1287	362	18	233
Sash-cord fastener and sash-lock. Combined	E. V. Heaford	228,349	June 1	215	61	17	1262
Sash-cord guide	F. S. Clarkson	225,969	Mar. 30	1190	338	17	701
Sash-cord guide	D. H. Duer	230,408	July 27	1095	308	18	201
Sash-cord guide	W. H. H. Kesler	233,254	Oct. 12	563	156	18	839
Sash-fastener	W. Brenton	224,324	Feb. 10	407	116	17	220
Sash-fastener	C. M. Burns, Jr.	226,033	Mar. 30	1266	357	17	713
Sash-fastener	L. D. Cleveland	228,729	June 15	709	195	17	1356
Sash-fastener	T. M. Foster	224,891	Feb. 21	1087	311	17	427
Sash-fastener	S. J. Freeman	229,995	July 13	567	157	18	102
Sash-fastener	A. E. French	228,523	June 8	435	119	17	1305
Sash-fastener	M. Haneline	226,312	Apr. 6	188	55	17	780
Sash-fastener	J. Harley	232,710	Sept. 28	1000	275	18	712
Sash-fastener	N. Haynes	229,884	July 13	442	122	18	82
Sash-fastener	A. Haytt	235,632	Dec. 21	713	203	18	1415
Sash-fastener	P. W. Ingram and E. Clark	233,351	Jan. 6	166	43	17	30
Sash-fastener	S. P. Jackson	228,199	June 1	43	14	17	1234
Sash-fastener	L. K. Lippincott	224,833	Feb. 21	1019	290	17	416
Sash-fastener	D. McCurdy	235,793	Dec. 21	898	251	18	1446
Sash-fastener	W. S. Owen	231,352	Aug. 17	873	246	18	402
Sash-fastener	J. Payne	230,434	July 27	1127	317	18	206
Sash-fastener	A. V. Sanford	234,071	Nov. 2	297	82	18	1035
Sash-fastener	W. W. Sweetland	235,042	Nov. 30	1525	411	18	1269
Sash-fastener	J. W. Todd	225,541	Mar. 16	666	195	17	591
Sash-fastener and burglar-alarm. Combined	M. Bourke	229,856	July 13	412	114	18	78
Sash-fastening	C. M. Burgess and R. Sanford	234,387	Nov. 16	704	189	18	1120
Sash-fastening	L. D. Cleveland	231,401	Aug. 24	932	263	18	419
Sash-fastening	A. Kolb and C. Osberghaus	229,894	July 13	450	125	18	84
Sash-fastening	C. H. Nye	229,451	June 29	1553	428	17	1491
Sash-fastening	H. F. Price	227,833	May 18	859	245	17	1138
Sash-fastening	J. Pussey	228,274	June 1	141	40	17	1249
Sash-holder	E. C. Byam	226,428	Apr. 13	398	112	17	825
Sash-holder	W. C. Curran	230,113	July 20	714	200	18	135
Sash-holder	E. Haug	232,270	Sept. 14	473	131	18	611
Sash-holder	P. P. Kuehborth	234,043	Nov. 2	270	73	18	1031
Sash-holder	O. S. Osborn	229,005	June 22	1053	286	17	1412
Sash-holder	N. P. Selden	223,250	Jan. 6	53	13	17	12
Sash-holder	S. I. Sutton	224,363	Feb. 10	452	130	17	297
Sash-holder	J. B. Yeagley	226,147	Mar. 30	1392	393	17	733
Sash-lock	E. C. Byam	226,487	Apr. 13	397	112	17	825
Sash-lock	E. F. De Witt	223,624	Jan. 13	505	137	17	100
Sash-lock	G. J. Metzger	227,562	May 11	543	156	17	1078
Sash-lock	S. M. Nickerson and J. P. Tansey	228,471	June 8	365	100	17	1295
Sash-lock	S. M. Nickerson and J. P. Tansey	228,472	June 8	366	100	17	1295
Sash-lock	C. S. Whipple	229,022	June 22	1066	290	17	1414
Sash lock and lift	E. J. Brooks	225,558	Mar. 16	686	200	17	595
Sash lock and lifter	T. A. Ireland	226,173	Apr. 6	30	8	17	751
Sash stop and fastener. Window-	J. H. Green	230,476	July 27	1180	332	18	215
Sash-supporter	J. Chandler	230,238	July 20	855	242	18	156
Sash-supporter	W. W. Sweetland	225,180	Mar. 2	223	63	17	495
Sash. Window-	D. W. Clark	225,570	Mar. 16	698	205	17	598
Sash. Window-	A. Friedrick	224,675	Feb. 17	819	232	17	369
Sash. Window-	G. Hartig	223,342	Jan. 6	157	41	17	28
Sash. Window-	H. Knoppel	230,024	July 13	598	166	18	106
Sash. Window-	T. Sharp	234,078	Nov. 2	304	84	18	1037
Sashes. Apparatus for raising and lowering.	L. G. Stocking	232,313	Sept. 14	521	145	18	619
Satchel, bag, and valise	E. Simon	229,056	June 22	1102	299	17	1420
Satchel-clasp	A. Kaufmann	226,174	Apr. 6	31	8	17	751
Sausage-stuffer	A. Diffenderfer	223,714	Jan. 20	614	164	17	127
Saw	A. A. Burr	225,795	Mar. 23	972	280	17	653
Saw	E. Morris	227,815	May 18	838	237	17	1135
Saw	J. Oldham	233,008	Oct. 5	253	69	18	780
Saw	C. Suisse	229,772	July 6	302	84	18	52
Saw-clamp	W. S. Winterbottom and J. Murray	229,851	July 13	407	112	18	77
Saw connection. Band-	H. N. Gale and W. L. Wright	230,934	Aug. 10	397	115	18	319
Saw. Drag-	J. Augspurger	226,590	Apr. 20	537	150	17	858
Saw. Drag-	J. Augspurger	233,907	Nov. 2	89	23	18	1001
Saw. Drag-	N. L. Brown	231,474	Aug. 24	1008	284	18	431
Saw. Drag-	J. Carrothers	229,091	June 22	1142	312	17	1426
Saw. Drag-	J. A. Cluxton	226,718	Apr. 20	679	189	17	881
Saw. Drag-	C. S. Dean	229,975	July 13	539	150	18	98
Saw. Drag-	J. M. De Coster	233,403	Oct. 19	769	212	18	880
Saw. Drag-	J. P. Fosdyck	233,610	Oct. 26	1028	286	18	933
Saw. Drag-	M. P. Hall	223,504	Jan. 13	365	97	17	77
Saw. Drag-	J. K. Hutchins	227,110	May 4	22	7	17	982
Saw. Drag-	M. B. Swindell	229,488	June 29	1605	443	17	1498
Saw. Endless-chain	E. Nunan	226,774	Apr. 20	737	206	17	890
Saw-file	H. A. Kimball	229,616	July 6	123	33	18	27
Saw filing and setting machine.	G. W. Dudley	226,291	Apr. 6	165	47, 48	17	776
Saw-filing machine.	P. Bossert	234,228	Nov. 9	496	136	18	1078
Saw-filing machine.	C. W. Dunn	233,739	Oct. 26	1174	326	18	957
Saw-filing machine.	H. Reily	232,062	Sept. 7	220	60, 61	18	560
Saw-filing machine.	H. Reily	232,063	Sept. 7	223	61, 62	18	561
Saw-filing machine.	C. S. Stevens	226,366	Apr. 6	241	71	17	790
Saw-filing machine. Gin-	D. T. Burden	232,679	Sept. 28	965	265	18	706
Saw-filing machine. Gin-	W. B. Johnson	228,644	June 8	586	155	17	1327
Saw-filing machine. Gin-	A. F. McAllister	231,340	Aug. 17	862	243	18	400
Saw-filing machine. Gin-	F. Moore	230,037	July 13	610	169	18	108
Saw-filing machine. Gin-	A. A. Wood	232,321	Sept. 14	532	147, 148	18	621

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Saw frame. Buck.....	W. H. Hankin, Jr.....	225,928	Mar. 30	1133	322	17	693
Saw-gage.....	S. Lonergan.....	232,989	Oct. 5	232	64	18	776
Saw-guide.....	G. W. Rodebaugh.....	230,499	July 27	1204	339	18	219
Saw guide. Circular.....	C. A. Sherman.....	233,563	Oct. 19	954	263	18	911
Saw-handle. Auxiliary.....	E. Andrews.....	231,977	Sept. 7	130	33	18	545
Saw machine. Drag.....	E. C. Bast.....	224,987	Mar. 2	7	2, 3	17	458
Saw machine. Drag.....	L. M. Comstock.....	233,731	Oct. 26	1165	324	18	956
Saw machine. Drag.....	W. J. Pulliam.....	225,164	Mar. 2	206	58	17	492
Saw-mill-carriage dog.....	G. F. Knight.....	233,627	Oct. 26	1050	292	18	936
Saw-mill dog.....	E. Bennett.....	232,924	Oct. 5	156	41	18	764
Saw-mill dog.....	T. Craney.....	223,997	Feb. 3	26	9	17	207
Saw-mill dog.....	W. J. Wickham.....	234,099	Nov. 2	326	90	18	1040
Saw-mill. Drag.....	J. H. Soule.....	232,310	Sept. 14	518	144	18	619
Saw-mill. Gang.....	J. M. Story.....	235,824	Dec. 21	932	260	18	1452
Saw-mill head-block.....	J. P. McKinley.....	231,341	Aug. 17	863	243	18	400
Saw-mill head-block.....	S. White.....	235,833	Dec. 21	944	264	18	1455
Saw-mill log-carriage.....	C. Bliven.....	229,084	June 22	1135	309	17	1425
Saw-mill log-conveyer.....	C. D. Meigs.....	223,936	Jan. 27	897	238	17	182
Saw-mill. Reciprocating.....	D. C. Prescott.....	226,350	Apr. 6	227	66	17	787
Saw-mill. Reciprocating.....	D. C. Prescott.....	231,192	Aug. 17	700	197	18	374
Saw-mill. Reciprocating.....	W. M. Wilkin.....	231,249	Aug. 17	769	215	18	385
Saw-mills. Feed and gig works for.....	J. H. Watson.....	224,749	Feb. 17	890	255	17	381
Saw-mills. Set-work for.....	W. Gowen.....	233,409	Oct. 19	779	214 215	18	881
Saw. Rotary cut-off.....	L. W. Green.....	228,886	June 15	900	246	17	1382
Saw. Scroll.....	D. F. Sutton.....	226,130	Mar. 30	1375	388	17	731
Saw-set.....	D. G. Davison.....	231,772	Aug. 31	1362	382	18	493
Saw-set.....	C. Morrill.....	224,789	Feb. 24	975	277	17	409
Saw-set.....	C. Morrill.....	235,374	Dec. 14	391	107	18	1354
Saw sharpener. Gin.....	R. S. Mudford.....	230,489	July 27	1195	336	18	217
Saw-swage.....	W. W. Rochelle.....	230,341	July 20	982	278	18	176
Saw-tables. Device for adjusting.....	J. Bennett.....	225,323	Mar. 9	416	120	17	539
Saw-teeth blanks. Manufacture of.....	D. Spaulding.....	226,426	Apr. 13	323	93	17	813
Saw-teeth. Device for jointing.....	F. J. Ulrich.....	230,908	Aug. 10	374	108	18	315
Saw-teeth. Device for swaging.....	F. M. Ricketts.....	231,615	Aug. 24	1170	327	18	456
Saw-tooth swage.....	J. Clark.....	226,977	Apr. 27	996	277	17	943
Saws. Adjustable safeguard for circular.....	J. Murley.....	227,287	May 4	222	66	17	1015
Saws and steel plates. Method of and apparatus for straightening.....	T. Bakewell.....	233,463	Oct. 19	840	231	18	891
Saws. Presser-foot and guide for scroll.....	F. M. Woods.....	233,059	Oct. 5	315	87	18	790
Sawing irregular curves. Gage for.....	A. S. Parks and A. W. Streeter.....	236,075	Dec. 28	1257	347	18	1513
Sawing-machine.....	W. Bredemann.....	226,969	Apr. 27	985	274	17	941
Sawing-machine.....	S. W. Brown.....	233,597	Oct. 26	1016	283	18	931
Sawing-machine.....	E. Culver.....	226,904	Apr. 27	906	252 253	17	929
Sawing-machine.....	A. T. Morris.....	234,886	Nov. 30	1336	360	18	1237
Sawing-machine.....	J. B. Rickard.....	226,791	Apr. 20	755	211	17	893
Sawing-machine.....	J. J. Thomas and W. F. Mills.....	233,126	Oct. 12	413	113	18	812
Sawing machine. Band.....	G. M. Van Riper.....	223,964	Jan. 27	927	248	17	187
Sawing machine. Circular.....	C. Bryant.....	230,175	July 20	783	218 219	18	145
Sawing machine. Circular.....	P. Prybil.....	228,218	June 1	68	20	17	1238
Sawing machine. Drag.....	M. Frank and A. Dickison.....	224,894	Feb. 24	1089	312	17	428
Sawing machine. Drag.....	R. J. Gardner.....	230,766	Aug. 3	193	56	18	278
Sawing machine. Drag.....	C. Hagerty.....	226,064	Mar. 30	1301	367	17	719
Sawing machine. Drag.....	A. J. Merritt.....	226,533	Apr. 13	456	128	17	834
Sawing machine. Drag.....	S. R. Smith and A. C. French.....	229,767	July 6	297	83	18	52
Sawing machine. Drag.....	S. F. Steele.....	228,413	June 1	280	79	17	1272
Sawing machine. Drag.....	J. A. Swinehart and L. Jourdan.....	224,968	Feb. 24	1164	333	17	440
Sawing machine. Drag.....	T. Van Kannel.....	224,809	Feb. 24	995	282	17	412
Sawing machine. Drag.....	A. Wilkins.....	228,237	June 1	94	28	17	1242
Sawing-machine. Hand.....	N. M. Lawrence, J. C. Wykoff, and J. R. Whitaker.....	227,169	May 4	95	26	17	993
Sawing machine. Scroll.....	W. D. Herschel.....	233,752	Oct. 26	1188	330	18	960
Sawing machine. Scroll.....	E. Nunan.....	229,908	July 13	463	128	18	86
Sawing machine. Tenon.....	W. H. Clayton.....	233,981	Nov. 2	187	48, 49	18	1018
Sawing machines. Frame for scroll.....	H. L. Beach.....	231,468	Aug. 24	1004	282	18	430
Scaffold.....	A. W. Silvius.....	232,556	Sept. 21	818	226 227	18	674
Scaffold. Portable window.....	J. Skidmore.....	224,110	Feb. 3	163	46	17	230
Scaffold. Shingling.....	R. A. H. Ashlock.....	232,324	Sept. 21	546	151	18	629
Scale-beam.....	C. H. Bidwell.....	229,663	July 6	175	48	18	34
Scale-beam.....	G. W. Bliss.....	231,989	Sept. 7	142	37	18	547
Scale-beam.....	J. Conway.....	223,217	Jan. 6	10	2	17	4
Scale-beam.....	D. W. Dake.....	232,393	Sept. 21	631	174	18	643
Scale-beam.....	J. T. Tillman.....	224,972	Feb. 24	1168	334	17	440
Scale-beam.....	J. H. Usher.....	224,494	Feb. 10	595	172	17	321
Scale-beam.....	H. Willard.....	223,787	Jan. 20	694	187	17	140
Scale-beam. Multiplying.....	C. E. Allen.....	231,516	Aug. 24	1058	297	18	438
Scale-beam. Recording.....	E. A. Chameroy.....	234,656	Nov. 23	1049	232	18	1184
Scale-beams. Poise for.....	W. W. Reynolds.....	227,579	May 11	564	161	17	1082
Scale-dials. Device for preventing vibrations of pointers of.....	D. T. Winter.....	231,741	Aug. 31	1327	373	18	487
Scales and meter. Combined grain.....	M. B. Cyphers.....	226,161	Apr. 6	15	4	17	749
Scales. Balance.....	G. A. Phifer.....	224,038	Feb. 3	74	22	17	216
Scales. Device for delivering groceries to counter.....	J. T. Hodge.....	227,780	May 18	804	228	17	1129
Scales. Hydrostatic.....	J. Deschamps.....	232,245	Sept. 14	445	122	18	606
Scales. Pendulum.....	J. B. Atwater.....	235,663	Dec. 21	745	212	18	1421
Scales. Pendulum.....	C. F. Batt.....	235,982	Dec. 28	1151	320	18	1496
Scales. Pendulum.....	P. Evens, Jr.....	225,513	Mar. 16	636	186	17	586
Scales. Pendulum weighing.....	J. Goodale.....	225,008	Mar. 2	29	9	17	461
Scales. Platform.....	F. Fairbanks.....	227,969	May 25	1044	297	17	1179
Scales. Portable weighing.....	W. W. Reynolds.....	226,000	Mar. 30	1228	347	17	707

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Scales. Spring.....	C. C. and S. B. Parker .....	227,645	May 18	647	184	17	1106
Scales. Wagon.....	W. W. Hopkins.....	232,500	Sept. 21	761	211	18	664
Scales. Weighing.....	W. C. Barr and W. H. Axford .....	226,959	Apr. 27	972	270	17	939
Scales. Weighing.....	R. F. Dobson .....	226,046	Mar. 30	1282	361	17	716
Scales. Weighing.....	D. Vincent and D. Johnen .....	228,843	June 15	855	233	17	1376
Scarf.....	G. C. Attree .....	231,889	Sept. 7	13	2, 3	18	526
Scarf.....	W. W. Fichtenberg.....	225,815	Mar. 23	997	286	17	657
Scarf and necktie holder.....	W. M. Davis.....	230,755	Aug. 3	183	53	18	276
Scarf. Neck.....	A. E. Convers.....	231,404	Aug. 24	924	264	18	419
Scarf. Neck.....	A. E. Convers.....	234,174	Nov. 9	429	116	18	1065
Scarf. Neck.....	L. Eshner .....	227,230	May 4	171	50	17	1005
Scarf. Neck.....	T. J. Flagg .....	227,158	May 4	85	23	17	991
Scarf. Neck.....	J. H. Fleisch .....	231,029	Aug. 10	505	142	18	335
Scarf. Neck.....	C. C. Hancock .....	228,460	June 8	355	97	17	1293
Scarf. Neck.....	W. A. Lavery .....	226,763	Apr. 20	727	203	17	889
Scarf. Neck.....	W. A. Lavery .....	226,764	Apr. 20	728	203	17	889
Scarf. Neck.....	W. A. Lavery and C. C. Hancock .....	232,516	Sept. 21	777	215	18	668
Scarf-ring.....	G. H. Folts .....	231,418	Aug. 24	951	268	18	421
Scarfs, &c. Device for the display of.....	R. R. Parker .....	229,838	July 13	394	108	18	75
Scissors.....	J. D. Frary .....	227,514	May 11	493	141	17	1070
Scissors.....	O. C. Hayward .....	226,026	Dec. 28	1202	332	18	1504
Scissors and shears.....	L. Strauss .....	226,128	Mar. 30	1374	387	17	731
Scoop-shovel for unloading cars.....	J. S. Metcalf.....	225,531	Mar. 16	654	191	17	589
Scoops. Manufacture of steel.....	E. Robinson .....	234,892	Nov. 30	1342	361	18	1238
Scourer:							
See Coffee-sconrer.							
Scow. Dumping.....	J. R. Knuth .....	227,019	Apr. 27	1046	290	17	951
Scraper.....	G. A. Birch .....	231,645	Aug. 31	1218	342	18	470
Scraper.....	M. W. Farber .....	232,396	Sept. 21	634	175	18	644
Scraper.....	G. D. Matcham .....	234,834	Nov. 23	1265	340	18	1219
Scraper.....	A. Rewrick and J. D. Gilmour.....	231,850	Aug. 31	1463	410	18	509
Scraper and fork. Combined.....	G. P. Rnhle.....	223,390	Jan. 6	204	54	17	37
Scraper and grader. Road.....	A. H. and C. H. Kimball.....	231,589	Aug. 24	1143	320	18	451
Scraper, chopper, and dirter. Combined.....	F. A. Hall and N. B. Milton.....	233,241	Oct. 12	546	151	18	836
Scraper. Dirt.....	W. C. Squire .....	223,122	Oct. 12	407	112	18	811
Scraper. Earth.....	A. R. Byrkett.....	229,863	July 13	418	116	18	79
Scraper. Earth.....	A. R. Byrkett.....	231,148	Aug. 17	642	181	18	364
Scraper. Earth.....	W. Haslap.....	234,982	Nov. 30	1454	391	18	1257
Scraper. Earth.....	W. T. McLean .....	230,797	Aug. 3	230	67	18	284
Scraper. Foot.....	W. J. Fryer, Jr. ....	224,774	Feb. 24	951	271	17	406
Scraper, grader, and leveler. Road.....	E. J. Howland .....	231,581	Aug. 24	1131	317	18	450
Scraper. Revolving sulky.....	W. C. Marr .....	232,738	Sept. 28	1030	283	18	717
Scraper. Road.....	A. N. Blackledge.....	226,270	Apr. 6	137	39	17	770
Scraper. Road.....	J. Harter .....	235,431	Dec. 14	462	131	18	1366
Scraper. Road.....	C. H. Matthiessen .....	230,307	July 20	940	267	18	169
Scraper. Road.....	J. Stubbs .....	230,081	July 13	655	183	18	116
Scraper. Road.....	J. Stubbs and F. Jonas.....	232,859	Oct. 5	75	22	18	751
Scraper. Sweat.....	R. S. Judson .....	227,362	May 11	327	96	17	1042
Scraper. Wheeled.....	L. A. Sweatt .....	226,686	Apr. 20	648	180	17	875
Scrapers. Apparatus for filling ditch.....	T. B. Cook.....	232,004	Sept. 7	158	41	18	549
Screen:							
See Card-screen. Paper-machine pulp-screen.							
Cockle-screen. Paper-pulp screen.							
Fire-screen. Paper-pulp screen.							
Grain and seed sep. Revolving screen.							
arating screen. Window-screen.							
Insect-screen. Window and door screen.							
Screen-frames. Bracket-piece for.....	E. N. Porter.....	230,438	July 27	1132	318	18	206
Screens or bolts. Device for clearing the meshes of.....	J. W. Collins .....	227,883	May 25	939	269	17	1163
Screw and bolt lock.....	J. A. Kernochan .....	231,588	Aug. 24	1142	319	18	451
Screw blanks. Machine for threading wood.....	E. Nugent and D. Tilton.....	233,366	Oct. 19	724	198	18	873
Screw-bolt.....	L. Strauss .....	228,288	June 1	158	44	17	1252
Screw-bolt and nut.....	A. B. Ibbotson and F. J. Talbot .....	226,450	Apr. 13	352	101	17	818
Screw-clamp. Differential.....	L. Yakel .....	229,069	June 22	1116	303	17	1422
Screw-clamp for wood-bending machines.....	C. F. T. Steinway.....	229,198	June 22	1250	343	17	1441
Screw-conveyer.....	H. W. Caldwell.....	235,619	Dec. 21	699	198	18	1412
Screw-conveyer.....	N. Hawkins.....	234,868	Nov. 30	1312	354	18	1233
Screw-cutting die.....	W. J. McCormack.....	232,533	Sept. 21	795	221	18	671
Screw-cutting die-stock.....	M. W. Walker and G. E. Williams.....	232,785	Sept. 28	1096	301	18	728
Screw-cutting machine.....	C. M. Spencer.....	223,255	Jan. 6	57	14	17	12
Screw-cutting machine.....	B. Stott .....	225,305	Mar. 9	391	114	17	535
Screw for tobacco and other presses. Mechanical-power.....	T. K. and W. H. Ball.....	232,872	Oct. 5	97	26	18	754
Screw. Hand.....	C. F. Pettingell.....	229,008	June 22	1056	287	17	1413
Screw. Jack.....	D. Rankin .....	232,846	Oct. 5	61	17	18	749
Screw. Jack.....	W. H. Williams.....	235,481	Dec. 14	525	151	18	1377
Screw machine. Sheet-metal.....	E. Jordan .....	230,875	Aug. 10	335	97	18	309
					100		
					101		
					102		
Screw machine. Wood.....	J. H. Greenleaf.....	225,277	Mar. 9	343	103	17	538
					104		
					105		
					106		
Screw machines. Cutting-off tool for metal.....	A. Johnston .....	224,543	Feb. 17	660	189	17	342
Screw. Packing.....	R. Neill .....	231,925	Sept. 7	54	13	18	533
Screw-polishing machine.....	C. Steinfels .....	236,103	Dec. 28	1293	355	18	1519
Screw-stock.....	P. Everitt .....	227,508	May 11	485	139	17	1069
Screw-tap.....	T. A. Fleming .....	228,882	June 15	897	245	17	1382
Screw-taps. Machine for making.....	J. J. Grant .....	230,629	Aug. 3	39	11, 12	18	253
Screw-tapping machine.....	J. G. Baker .....	232,918	Oct. 5	149	40	18	762
Screw-threading machine.....	S. L. Worsley .....	232,869	Oct. 5	87	24, 25	18	753
Screw-threads. Device for cutting.....	J. C. Williams .....	228,429	June 1	295	83	17	1274



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Screw-threads. Machine for cutting.....	I. S. Schuyler.....	230,825	Aug. 3	269	76, 77	18	291
Screw-threads. Machine for cutting.....	J. H. Vinton.....	233,821	Oct. 26	1268	{ 354 355 }	18	974
Screw. Wood.....	J. Eckford.....	234,759	Nov. 23	1169	315	18	1203
Screws. Machine for making machine.....	W. H. Eddy.....	223,989	June 22	1029	{ 281 282 }	17	1409
Screws or bolts. Machine for rolling threads of.....	H. A. Harvey.....	223,730	Jan. 20	630	{ 169 170 }	17	129
Scroll. Adjustable.....	A. Paul.....	231,188	Aug. 17	696	196	18	373
Scythe and other blade fastenings.....	G. W. Pressey.....	234,721	Nov. 23	1126	303	18	1196
Scythe-blade.....	S. A. Millard.....	227,033	Apr. 27	1063	294	17	954
Scythe-fastening.....	F. S. Kretsinger.....	227,271	May 4	209	61	17	1012
Scythe-snath.....	J. Gearon.....	235,425	Dec. 14	457	129	18	1365
Seal and tag.....	E. J. Brooks.....	235,668	Dec. 21	752	213	18	1421
Seal. Baggage.....	W. Weiss.....	233,052	Oct. 5	309	85	18	789
Seal-lock.....	A. Halsey.....	235,356	Dec. 14	369	101	18	1350
Seal-lock.....	J. Kinzer.....	230,023	July 13	597	165	18	106
Seal-lock.....	W. B. Mason.....	229,003	June 22	1049	286	17	1412
Seal-lock.....	G. M. Patten.....	229,006	June 22	1053	287	17	1412
Seal-lock.....	J. Thomer and F. Köhazy.....	224,115	Feb. 3	168	47, 48	17	231
Seal-press.....	J. M. Harding.....	227,522	May 11	502	144	17	1071
Sealing packages.....	E. A. McAlpin.....	228,368	June 1	234	66	17	1265
Sealing-press.....	F. Anthes.....	235,398	Dec. 14	417	117	18	1359
Sealing press, punch, &c.....	J. E. Thomson.....	228,572	June 8	498	133	17	1314
Sealing vessels. Method of and device for.....	A. Ingersoll and C. L. Ayerst.....	234,674	Nov. 23	1076	290	18	1189
Seaming-machine.....	F. A. Walsh.....	228,234	June 1	90	27	17	1241
Seaming-machine.....	F. A. Walsh.....	228,235	June 1	92	27	17	1241
Seaming-machine.....	F. A. Walsh.....	225,500	Mar. 16	616	179	17	583
Seaming-machine. Can.....	H. Miller.....	232,535	Sept. 21	797	221	18	671
Seaming-machine. Can.....	G. H. Perkins.....	227,823	May 18	845	240	17	1136
Seaming-machine. Can.....	G. H. Perkins.....	227,824	May 18	847	240	17	1136
Seaming-machine. Sheet-metal.....	G. D. Brooks.....	225,685	Mar. 23	839	244	17	631
Seat:							
See Beach-seat. Valve-seat.							
Carriage-seat. Vehicle-seat.							
Carriage jump-seat. Vehicle jump-seat.							
Chair-seat. Vehicle shifting seat.							
Chair, settee, and Vehicle spring-seat.							
vehicle seat. Wagon-seat.							
Seat-lock.....	J. L. Dolson.....	229,977	July 13	542	151	18	98
Secretary-table.....	A. Iske.....	233,766	Oct. 26	1203	334	18	963
Sectional boiler.....	J. G. Curtis.....	229,964	July 13	527	146	18	95
Sectional boiler.....	M. W. Hazelton.....	224,685	Feb. 17	828	235	17	370
Seed-cleaner.....	J. McMurtry and P. Carroll.....	230,143	July 20	749	208	18	140
Seed crusher. Cotton.....	W. L. Owen.....	226,775	Apr. 20	738	206	17	891
Seed-drill.....	G. Sommerfeldt.....	226,253	Apr. 6	118	33	17	767
Seed-drill and cultivator. Circular.....	A. T. Linderman.....	226,178	Apr. 6	37	9	17	752
Seed-drill and rolling cutter. Combined.....	J. D. Shrigley.....	235,029	Nov. 30	1508	406	18	1266
Seed-drill feed.....	J. L. Riter.....	234,203	Nov. 9	469	127	18	1073
Seed-drill fertilizer attachment.....	A. C. Hendricks.....	224,184	Feb. 3	245	71	17	244
Seed-drill fertilizer attachment.....	A. C. Hendricks.....	230,278	July 20	910	259	18	164
Seed-dropper.....	B. F. Eaton.....	232,177	Sept. 14	359	100	18	591
Seed huller. Cotton.....	S. Kitchens, Sr.....	234,584	Nov. 16	957	{ 253 254 }	18	1162
Seed. Machine for cleaning blue-grass.....	J. D. Batson.....	226,698	Apr. 20	659	183	17	878
Seed-separating machine.....	J. M. Blecker.....	234,946	Nov. 30	1407	378	18	1248
Seeder and cultivator.....	W. H. Nauman and E. F. Stoddard.....	236,067	Dec. 28	1249	345	18	1512
Seeder and cultivator. Combined.....	C. La Dow.....	226,233	Apr. 6	99	27	17	763
Seeder and fertilizer.....	H. R. Hawkins.....	231,570	Aug. 24	1119	313	18	448
Seeder. Broadcast.....	J. Hogan.....	226,516	Apr. 13	438	122	17	831
Seeder. Grain.....	P. Schan.....	229,013	June 22	1060	288	17	1413
Seeder. Grass.....	C. F. Johnson, Jr.....	229,826	July 13	377	104	18	72
Seeding-drill.....	E. G. Matthews.....	231,920	Sept. 7	48	12	18	532
Seeding-machine.....	M. J. Clawson.....	226,442	Apr. 13	344	98	17	816
Seeding-machine.....	S. Hoke.....	232,718	Sept. 28	1009	278	18	713
Seeding-machine.....	W. H. Johnson.....	232,826	Oct. 5	39	10, 11	18	745
Seeding-machine.....	J. H. Jones.....	233,517	Oct. 19	896	{ 247 248 }	18	901
Seeding-machine.....	J. W. Mann.....	228,913	June 15	930	253	17	1386
Seeding-machine.....	J. L. McCall.....	229,439	June 29	1537	423	17	1489
Seeding-machine.....	A. N. and D. C. Norris.....	233,111	Oct. 12	393	108	18	809
Seeding-machine.....	J. R. Rude.....	226,355	Apr. 6	232	68	17	788
Seeding-machine force-feed.....	J. L. Riter.....	234,335	Nov. 9	617	168	18	1098
Seeding-machines. Spring-heel attachment for.....	S. B. Hart.....	234,566	Nov. 16	918	247	18	1156
Seggars and other pottery-ware. Manufacture of.....	O. O. Bowman.....	227,408	May 11	374	110	17	1050
Selenium-cell.....	A. G. Bell and S. Tainter.....	235,497	Dec. 14	542	156	18	1380
Selenium-cell.....	S. Tainter.....	235,590	Dec. 14	656	186	18	1398
Selenium to increase its electric conductivity. Treat- ing.....	A. G. Bell and S. Tainter.....	235,616	Dec. 21	695	.....	18	1411
Self-locking hook.....	J. R. Haines.....	224,423	Feb. 10	518	148	17	308
Self-waiting table.....	W. E. Owens.....	223,295	Jan. 6	111	27	17	20
Semaphore. Electric railway.....	J. Nesbitt.....	225,633	Mar. 16	768	226	17	610
Semolino, &c. Apparatus for purifying and assort- ing.....	F. Thompson and W. H. William- son.....	226,808	Apr. 20	773	216	17	896
Separating apparatus. Magnetic.....	C. E. Fritz.....	232,956	Oct. 5	191	51	18	769
Separator:							
See Chop-separator. Grain and cockle separa- tor.							
Cockle-separator. Grain and seed separator.							
Flour-mill dust-sep- arator. Magnetic separator.							
Grain-separator. Ore-separator.							
Separator and purifier.....	I. H. Richards.....	233,375	Oct. 19	734	201	18	874
Service-box.....	J. E. Boyle.....	234,114	Nov. 9	358	99	18	1053
Service-box for gas and water pipes.....	F. Jarecki.....	230,704	Aug. 3	125	36	18	266
Service-box. Junction.....	S. E. Babcock.....	225,546	Mar. 16	672	196	17	592

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Service-pipe box .....	E. H. Hummer and J. S. Gemmill .....	225,385	Mar. 9	478	139	17	549
Settee. Lawn .....	J. E. Cotton .....	233,732	Oct. 26	1166	324	18	956
Sewage. Method of and apparatus for removing .....	I. Shono .....	235,910	Dec. 28	1061	293 294	18	1481
Sewage-transportation tank .....	R. A. McCauley .....	225,850	Mar. 23	1025	296	17	662
Sewage. Treatment of .....	B. Terne .....	228,955	June 15	971	—	17	1392
Sewer .....	F. Dernham .....	232,948	Oct. 5	185	49	18	769
Sewer and catch-basin .....	J. F. Lavery .....	228,084	May 25	1170	333	17	1199
Sewer catch-basin .....	P. Markey .....	226,620	Apr. 20	572	159	17	864
Sewer-connection .....	M. Schmitt .....	225,424	Mar. 9	522	150	17	556
Sewer-gas into buildings. Device for preventing the entrance of .....	A. F. Pfughaupt, Jr .....	228,927	June 15	943	257	17	1388
Sewer-gas trap .....	J. A. Burgess .....	227,411	May 11	377	111	17	1050
Sewer-gas trap .....	A. F. Pfughaupt, Jr .....	228,674	June 8	611	164	17	1331
Sewer-grating .....	A. H. Lowell .....	228,091	May 25	1178	335	17	1200
Sewer-pipes and sewers. Device for cleaning out street .....	T. Dark .....	231,015	Aug. 10	488	138	18	332
Sewer-pits. Closure for .....	P. Wolff .....	233,454	Oct. 19	833	229 230	18	890
Sewer-trap .....	W. P. Austin .....	230,685	Aug. 3	106	30	18	267
Sewer-trap .....	W. L. Randolph .....	227,130	May 4	44	13	17	986
Sewer-trap .....	A. Staples .....	232,376	Sept. 21	613	168	18	640
Sewer-trap .....	E. B. Ward .....	236,125	Dec. 28	1327	364	18	1524
Sewer-trap. Automatic .....	M. B. Cowden .....	227,614	May 18	612	176	17	1100
Sewer-trap, &c., valve .....	W. Wilson .....	225,776	Mar. 23	951	274	17	649
Sewers or pipes. Apparatus for forming cement .....	W. Wilson .....	233,825	Oct. 26	1274	357	18	975
Sewing and embroidering machine .....	A. Brooks .....	235,609	Dec. 14	682	194 195	18	1403
Sewing and other machines. Cabinet for .....	G. W. Burgess .....	224,993	Mar. 2	12	4	17	458
Sewing. Book .....	D. M. Smyth .....	235,466	Dec. 14	509	147	18	1374
Sewing button-holes, overseaming, &c. Machine for .....	W. M. Smith .....	225,199	Mar. 2	246	69	17	499
Sewing covered nuts. Machine for .....	H. Smith .....	224,963	Feb. 24	1154	330	17	438
Sewing covered wire to hats, &c. Machine for .....	C. H. Willcox .....	230,212	July 20	827	234	18	152
Sewing-machine .....	C. M. Banks .....	225,784	Mar. 23	959	276 277	17	650
Sewing-machine .....	J. E. Bertin .....	225,553	Mar. 16	681	199	17	594
Sewing-machine .....	D. H. Campbell .....	231,954	Sept. 7	92	24	18	539
Sewing-machine .....	J. Connelly .....	228,611	June 8	545	145	17	1321
Sewing-machine .....	A. S. Dinsmore .....	231,155	Aug. 17	649	184	18	366
Sewing-machine .....	T. J. Ford .....	228,992	June 22	1039	283	17	1410
Sewing-machine .....	C. F. Harlow .....	231,568	Aug. 24	1117	313	18	447
Sewing-machine .....	G. W. Hunter .....	223,229	Jan. 6	24	6	17	7
Sewing-machine .....	G. W. Hunter .....	232,971	Oct. 5	214	58	18	773
Sewing-machine .....	F. Jacob .....	230,020	July 13	593	164 165	18	106
Sewing-machine .....	G. Juengst .....	228,820	June 15	827	226	17	1372
Sewing-machine .....	J. Keith .....	233,626	Oct. 26	1049	292	18	936
Sewing-machine .....	H. N. Kjalman .....	235,783	Dec. 21	883	246 247	18	1443
Sewing-machine .....	W. Koch and W. Wiese .....	234,587	Nov. 16	960	255	18	1163
Sewing-machine .....	L. B. Miller and P. Diehl .....	229,629	July 6	134	37, 38	18	29
Sewing-machine .....	J. R. Scott .....	233,560	Oct. 19	952	262	18	911
Sewing-machine .....	J. R. Scott .....	233,561	Oct. 19	953	262	18	911
Sewing-machine .....	E. Shaw .....	230,580	July 27	1258	363	18	233
Sewing-machine .....	W. M. Smith .....	235,579	Dec. 14	644	183	18	1397
Sewing-machine .....	D. M. Smyth .....	234,732	Nov. 23	1139	307	18	1198
Sewing-machine .....	W. J. Stewart .....	227,187	May 4	115	34	17	997
Sewing-machine .....	E. T. Thomas .....	225,954	Mar. 30	1175	333 334	17	699
Sewing-machine .....	E. T. Thomas .....	230,677	Aug. 3	99	28	18	262
Sewing-machine .....	E. T. Thomas .....	230,972	Aug. 10	440	126	18	325
Sewing-machine .....	E. T. Thomas .....	234,628	Nov. 16	1003	267	18	1171
Sewing-machine .....	C. H. Thurston .....	233,300	Oct. 12	622	171 172	18	849
Sewing-machine attachment .....	I. L. Grinnell .....	230,478	July 27	1182	333	18	215
Sewing-machine attachment for darning, &c. .....	R. M. Rose .....	235,456	Dec. 14	498	143	18	1372
Sewing-machine balance-wheel pulley .....	E. Flather .....	228,184	June 1	25	8	17	1231
Sewing-machine band-wheel bearing .....	L. B. Miller and P. Diehl .....	224,710	Feb. 17	848	242	17	374
Sewing-machine belt-tightening attachment .....	J. H. Allen .....	228,850	June 15	863	235	17	1377
Sewing-machine binding attachment .....	T. Westgate .....	230,594	July 27	1308	369	18	237
Sewing-machine bobbin-winding attachment .....	J. Kayser .....	226,322	Apr. 6	196	58	17	782
Sewing machine. Book .....	E. S. Boynton .....	232,446	Sept. 21	700	193	18	654
Sewing machine. Book .....	E. S. Boynton .....	232,447	Sept. 21	701	193 194	18	654
Sewing machine. Boot and shoe .....	G. R. Pearce .....	235,377	Dec. 14	394	108	18	1354
Sewing machine. Boot and shoe .....	J. R. Scott .....	233,559	Oct. 19	950	261 262	18	910
Sewing machine. Boot and shoe .....	J. L. Withey .....	224,063	Feb. 3	109	32	17	221
Sewing machine. Boot and shoe .....	E. Woodward .....	234,513	Nov. 16	849	237	18	1144
Sewing-machine brake .....	C. J. and G. F. Danielson .....	235,752	Dec. 21	852	238	18	1438
Sewing-machine brake .....	E. L. Howard .....	223,228	Jan. 6	22	5	17	6
Sewing machine. Broom .....	C. E. Lipe .....	229,322	June 29	1404	385 386	17	1470
Sewing-machine. Button-hole .....	J. H. Applegate .....	234,451	Nov. 16	779	209	18	1133
Sewing-machine. Button-hole .....	D. Barcellos .....	235,725	Dec. 21	822	230	18	1433
Sewing-machine. Button-hole .....	J. H. Brown .....	225,559	Mar. 16	687	201	17	595
Sewing-machine button-hole attachment .....	C. M. Banks .....	223,694	Jan. 20	595	159	17	123
Sewing-machine button-hole attachment .....	J. K. Harris .....	235,235	Dec. 7	210	57	18	1315
Sewing machine. Carpet .....	J. Hesse .....	235,085	Dec. 7	28	9	18	1285
Sewing-machine case .....	H. E. Caulfield .....	233,327	Oct. 19	675	186	18	865
Sewing-machine cording attachment .....	A. Lobdell .....	223,364	Jan. 6	178	47	17	32
Sewing-machine cutting attachment .....	J. H. Osborne .....	224,219	Feb. 3	252	81	17	250
Sewing-machine driving mechanism .....	C. L. French .....	227,515	May 11	493	142	17	1070
Sewing-machine driving mechanism .....	F. L. Hartenstein .....	232,491	Sept. 21	752	208	18	663
Sewing-machine embroidering attachment .....	J. Jankowitch .....	233,767	Oct. 26	1204	334	18	963
Sewing-machine embroidering attachment .....	H. F. Schlueter .....	226,206	Apr. 6	71	18	17	758

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Sewing-machine embroidering attachment	H. F. Schlueter	226,207	Apr. 6	72	18	17	758
Sewing-machine eyelet-hole attachment	G. M. Morris	227,640	May 18	638	183	17	1104
Sewing-machine fan attachment	C. D. Stewart	234,818	Nov. 23	1247	335	18	1216
Sewing-machine feeding device	J. H. Morley	228,918	June 15	934	254	17	1387
Sewing-machine feeding mechanism	H. E. Dieterle	232,010	Sept. 7	165	42	18	551
Sewing-machine feeding mechanism	D. W. Goodell	230,544	July 27	1252	353	18	227
Sewing-machine fly-wheels. Device for controlling	J. F. Bourn	232,929	Oct. 5	161	43	18	764
Sewing-machine folding attachment	J. S. Foley and G. W. Comee	228,622	June 8	558	148	17	1323
Sewing-machine gatherer and ruffler	J. B. Farrar	235,220	Dec. 7	196	54	18	1313
Sewing-machine guide	J. F. J. Gunning	234,181	Nov. 9	436	118	18	1067
Sewing-machine guide	J. F. Schroeder	229,760	July 6	290	81	18	51
Sewing-machine hand-power	G. P. Herndon	225,131	Mar. 2	177	50	17	486
Sewing-machine hand-power attachment	C. T. Christmas	226,492	Apr. 13	402	114	17	826
Sewing-machine. Hemstitch	J. H. Brown and L. Mayer	227,375	May 11	343	100	17	1045
Sewing-machine motor	T. E. Marable	226,529	Apr. 13	452	127	17	833
Sewing-machine motor	J. V. Morton	225,627	Mar. 16	761	224	17	609
Sewing-machine motor	R. Whitehill	225,191	Mar. 2	235	66	17	496
Sewing-machine needle	W. C. Cross	228,446	June 8	336	93	17	1291
Sewing-machine needle	J., Jr., and L. Wagner	227,192	May 4	122	35	17	997
Sewing-machine-needle blanks. Machine for swaging	R. Thompson	234,931	Nov. 30	1386	373	18	1245
Sewing-machine operating mechanism	G. W. Zeigler	232,622	Sept. 28	899	248	18	695
Sewing-machine operating mechanism	G. W. Zeigler	232,623	Sept. 28	900	248	18	695
Sewing-machine operating mechanism	G. W. Zeigler	232,624	Sept. 28	901	248	18	695
Sewing-machine overscaming attachment	G. H. W. Curtis	228,985	June 22	1026	279	17	1409
Sewing-machine piping and hemming attachment. Combined	G. W. Baker	226,382	Apr. 13	268	80		
Sewing-machine piping attachment	A. B. Felt	223,329	Jan. 6	146	37	17	26
Sewing-machine plait-folder	A. Steward	233,380	Oct. 19	741	202	18	876
Sewing-machine plaiting attachment	C. L. Kellogg	234,677	Nov. 23	1080	290	18	1189
Sewing-machine plaiting attachment	L. Lyon	229,155	June 22	1208	331	17	1436
Sewing-machine power attachment	A. D. Pentz	231,189	Aug. 17	697	196	18	373
Sewing-machine quilting-gage	J. H. Lavance	234,485	Nov. 16	819	219	18	1140
Sewing-machine receptacle and extension-table leaf	R. M. Hicks	232,127	Sept. 14	298	84	18	581
Sewing-machine roller-presser	P. Diehl	225,274	Mar. 9	339	99	17	528
Sewing-machine ruffling and plaiting attachment	L. Onderdonk	231,844	Aug. 31	1452	408	18	507
Sewing-machine ruffling and puffing attachment	C. H. Carter	234,242	Nov. 9	511	141		
Sewing-machine ruffling attachment	G. W. Darby	231,768	Aug. 31	1357	381	18	492
Sewing-machine ruffling attachment	S. N. Rowley	233,025	Oct. 5	272	75	18	783
Sewing-machine ruffling or gathering attachment	J. M. Griest	228,457	June 8	351	96	17	1295
Sewing-machine. Running-stitch	J. Heberling	227,249	May 4	189	55	17	1009
Sewing-machine. Running-stitch	J. Heberling	227,525	May 11	504	145	17	1072
Sewing machine. Shoe	C. F. Bosworth	226,481	Apr. 13	388	109	17	823
Sewing machine. Shoe	H. Folsom	227,160	May 4	87	23		
Sewing-machine shuttle	J. V. D. Eldredge	232,248	Sept. 14	447	123	18	606
Sewing-machine shuttle	T. J. Holton	233,760	Oct. 26	1199	332	18	962
Sewing-machine shuttle	L. B. Miller and P. Diehl	233,789	Oct. 26	1227	341	18	967
Sewing-machine shuttle	G. F. Newell	232,142	Sept. 14	313	88	18	583
Sewing-machine shuttle-bobbin	C. F. Denison	231,285	Aug. 17	804	225	18	391
Sewing-machine shuttle-carrier	P. E. Austin and B. W. Nichols	234,112	Nov. 9	357	99	18	1053
Sewing-machine shuttle-race	W. G. Wilson and G. S. Darling	233,588	Oct. 19	979	271	18	915
Sewing-machine spool-case	T. Terrell and I. U. Travis	225,437	Mar. 9	535	154	17	558
Sewing-machine. Stationary-shuttle	A. Brill	232,932	Oct. 5	165	43	18	765
Sewing-machine stop mechanism	G. W. Hunter	230,941	Aug. 10	406	117	18	320
Sewing-machine. Straw-braid	E. Wiseman	228,711	June 8	647	175	17	1336
Sewing-machine sweat-lining guide	T. W. Bracher	224,134	Feb. 3	186	53		
Sewing-machine table	J. E. Donovan	225,809	Mar. 23	990	284	17	656
Sewing-machine take-up	G. W. Baker	224,572	Feb. 17	698	199	17	348
Sewing-machine tension device	G. A. Brady	226,028	Mar. 30	1261	356	17	713
Sewing-machine tension mechanism	G. McKay	229,049	June 22	1093	298	17	1418
Sewing-machine treadle	J. E. Donovan	230,251	July 20	884	250	18	160
Sewing-machine treadle	D. Leib	225,150	Mar. 2	194	54, 55	17	489
Sewing-machine treadle	R. Steel	230,503	July 27	1208	340	18	219
Sewing-machine treadle	R. Steel	234,498	Nov. 16	833	222	18	1141
Sewing-machine trimming attachment	J. E. Wilson	226,432	Apr. 13	331	95	17	815
Sewing-machine tuck-creaser	H. W. Comstock	232,175	Sept. 14	355	99	18	590
Sewing-machine tuck-marker	G. White	230,024	June 22	1067	291	17	1415
Sewing-machine tucker	L. H. Johnson and N. Reynolds	225,390	Mar. 9	483	140	17	550
Sewing-machine. Wax-thread	H. F. Nason	227,288	May 4	223	66		
Sewing-machine. Welt-guide for	T. B. Young	231,465	Aug. 24	1001	281	18	430
Sewing machine. Wire	J., Jr., and L. Wagner	227,138	May 4	58	16, 17	17	987
Sewing-machines. Attachment holder and adjuster for	G. W. Baker	233,911	Nov. 2	96	25	18	1002
Sewing-machines. Balance-wheel pulley for	E. Flathe	235,146	Dec. 7	103	30	18	1298
Sewing-machines. Bobbin-holder or ring-slide for	C. and D. E. Marsh	227,696	May 18	707	200	17	1114
Sewing-machines. Braid-guide for straw-braid	G. F. Stone	231,370	Aug. 17	891	251	18	405
Sewing-machines. Clutching and breaking device for power-driven	L. Sternberger	223,656	Jan. 20	549	148	17	117
Sewing-machines. Darning device to be used with	C. G. Akam	223,975	Feb. 3	3	1	17	203
Sewing-machines. Harness pipe-loop attachment for wax-thread	D. M. Lewis	224,930	Feb. 24	1122	320	17	433
Sewing-machines. Heating wax on the thread in	W. Joint and E. Nicholson	232,827	Oct. 5	41	11	18	745
Sewing-machines. Mechanism for applying power to	J. S. Detrick	230,695	Aug. 3	115	33	18	265
Sewing-machines. Mechanism for operating the feed and shuttles of	G. M. Pratt	226,550	Apr. 13	473	133	17	836
Sewing-machines off the dead-centers. Device for keeping the pitmen of	C. A. Van Allen	229,021	June 22	1065	290	17	1414
Sewing-machines. Presser-foot and cord-guide for button-hole	T. S. L. Howard	225,523	Mar. 16	646	188	17	587
Sewing-machines. Stand for power-driven	L. Sternberger	226,802	Apr. 20	768	214	17	895

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Sewing-machines. Swinging treadle for.....	A. Iske.....	232,130	Sept. 14	301	85	18	582
Sewing-machines. Wire-reel for.....	W. F. Beardslee.....	232,168	Sept. 14	348	98	18	589
Sewing sweat-linings into hats. Machine for.....	J. Butcher.....	233,657	Oct. 26	1084	302	18	942
Sewing. Tool for hand.....	J. P. Council.....	229,100	June 22	1150	314	17	1427
Shade and curtain roller.....	J. R. Finney.....	227,889	May 25	946	271	17	1164
Shade and refractor combined.....	J. S. Goldsmith.....	235,866	Dec. 28	1008	278	18	1472
Shade-holder.....	N. L. Bradley.....	228,594	June 8	529	141	17	1319
Shade-holder.....	J. A. Everts.....	224,411	Feb. 10	506	145	17	306
Shade-roller.....	C. P. Rose.....	230,063	July 13	637	178	18	113
Shade-roller. Spring.....	D. E. Kempster.....	224,596	Feb. 17	732	207	17	354
Shade-roller. Spring.....	J. C. Lake.....	223,595	Jan. 13	473	128	17	95
Shaft and axle bearing.....	J. N. Bitting.....	230,994	Aug. 10	466	132	18	329
Shaft and sheath. Flexible.....	W. H. Gates.....	225,516	Mar. 16	638	186	17	586
Shaft and tumbling-rod coupling.....	A. T. Hutson.....	229,043	June 22	1088	296	17	1417
Shaft-bearing.....	H. L. Moulton.....	231,342	Aug. 17	864	243	18	400
Shaft-bending machine.....	J. H. Smith.....	232,557	Sept. 21	820	227	18	675
Shaft-coupling.....	H. S. Fontaine.....	233,225	Oct. 12	527	146	18	832
Shaft-coupling.....	J. Geisinger.....	223,335	Jan. 6	151	39	17	27
Shaft-coupling.....	C. Q. Hayes.....	225,126	Mar. 2	172	48	17	485
Shaft-coupling.....	H. Kline.....	227,980	May 25	1056	300	17	1181
Shaft-coupling.....	J. P. and J. M. Ownby.....	227,292	May 4	228	67	17	1015
Shaft-coupling.....	N. Stedman.....	234,343	Nov. 9	625	171	18	1099
Shaft-coupling.....	J. Walker.....	230,843	Aug. 3	288	82	18	294
Shaft-coupling for two-wheeled vehicles.....	W. R. Clark.....	231,212	Aug. 17	729	204	18	378
Shaft hanger, bracket, and post.....	A. Lechner.....	227,634	May 18	631	180	17	1103
Shaft support. Vehicle.....	D. A. Epperson.....	226,049	Mar. 30	1285	362	17	716
Shaft-supporter.....	R. A. Regester.....	233,548	Oct. 19	938	258	18	908
Shaft supporter. Vehicle.....	J. R. Wilkinson.....	232,881	Oct. 5	106	28	18	755
Shafts. Apparatus for stepping, connecting, and dis-connecting.....	T. Coltman.....	232,241	Sept. 14	440	121	18	605
Shafts. Clutching and releasing device for.....	J. Berkholz.....	232,926	Oct. 5	158	42	18	764
Shafts. Ring-burr for turning.....	S. B. Pierce.....	230,812	Aug. 3	245	70	18	287
Shafting and shafts. Bracket and bearing for.....	J. S. Taylor and S. W. Challen.....	231,866	Aug. 31	1478	{ 415 416 }	18	511
Shafting. Flexible.....	W. H. Kimball.....	235,780	Dec. 21	881	246	18	1443
Shafting-hanger.....	G. W. Fisher.....	224,821	Feb. 24	1007	285	17	414
Shafting-hanger.....	A. Loehner.....	225,757	Mar. 23	929	269	17	646
Shank creasing, coloring, and stamping machine.....	A. W. Mussels and J. Pray.....	224,030	Feb. 3	64	20	17	214
Shank-making machine.....	E. M. Marston.....	229,438	June 29	1536	423	17	1488
Shaving-cnp.....	C. K. Williams.....	229,067	June 22	1114	303	17	1421
Shavings. Ground.....	D. C. Newell.....	232,840	Oct. 5	56	-----	18	748
Shavings. Machine for cutting and conveying wood.....	H. D. Stover.....	227,316	May 4	257	75	17	1020
Shawl-strap.....	M. Rubin.....	227,060	Apr. 27	1099	304	17	959
Shawl-strap.....	M. Rubin.....	228,942	June 15	961	261	17	1390
Shawl-strap.....	J. Voos.....	224,748	Feb. 17	889	254	17	381
Shawl-strap handle and boot-jack.....	M. W. Marsden.....	226,766	Apr. 20	729	204	17	889
Shearing horses. Device for.....	F. Y. Wolseley.....	223,664	Jan. 20	562	{ 151 152 }	17	118
Shears:							
See Angle-shears. Metal-cutting shears.							
Animal-shears. Sheep-shears.							
Blacksmith's shears.							
Sheave.....	E. D. Draper.....	223,802	Jan. 27	728	197	17	156
Sheaves. Anti-friction roller for.....	F. B. Torrey.....	232,423	Sept. 21	671	185	18	650
Sheep-rack.....	S. A. Coe.....	226,650	Apr. 20	609	170	17	869
Sheep-shears.....	D. E. McKee.....	230,712	Aug. 3	135	40	18	268
Sheet-metal can.....	W. W. Flint.....	236,013	Dec. 28	1187	328	18	1502
Sheet-metal cau.....	C. Green.....	234,269	Nov. 9	544	148	18	1085
Sheet-metal can.....	L. Richardson.....	227,303	May 4	243	70	17	1018
Sheet-metal can.....	A. Rosenzweig.....	232,067	Sept. 7	226	63	18	561
Sheet-metal can.....	F. A. Walsh.....	225,449	Mar. 16	615	178	17	583
Sheet-metal can.....	F. A. Walsh.....	231,744	Aug. 31	1331	374	18	488
Sheet-metal-can machine.....	W. H. Brock.....	230,465	July 27	1165	329	18	212
Sheet-metal-can machinery.....	W. H. Brock.....	232,111	Sept. 14	283	79	18	578
Sheet-metal cans. Aciding-machine for making.....	J. W. Farrell.....	224,771	Feb. 24	946	270	17	405
Sheet-metal cans. Cement-ring for.....	H. Callahan.....	233,326	Oct. 19	675	185	18	865
Sheet-metal cans. Making.....	W. A. Vicks.....	230,726	Aug. 3	148	44	18	271
Sheet-metal cans. Press and former for making the heads of.....	H. R. Robbins.....	228,120	May 25	1207	344	17	1205
Sheet-metal joint.....	C. Wright.....	228,240	June 1	97	29	17	1242
Sheet metal. Machine for edging.....	J. E. Tyler.....	235,317	Dec. 7	298	84	18	1331
Sheet metal. Machine for wiring and flanging.....	A. and C. Scherb.....	227,846	May 18	873	249	17	1140
Sheet metal. Machinery for cleaning and polish-ing.....	W. H. Camp.....	225,796	Mar. 23	973	280	17	653
Sheet-metal pan.....	A. Cox.....	224,396	Feb. 10	489	140	17	303
Sheet-metal pans. Device for forming.....	M. Kennedy.....	224,922	Feb. 24	1117	319	17	433
Sheet-metal pans. Machine for making.....	U. D. Alexander.....	227,196	May 4	125	36, 37	17	998
Sheet-metal pipes. Machine for forming circumfer-ential crimps in.....	W. A. Wheeler.....	224,974	Feb. 24	1169	{ 334 335 }	17	441
Sheet-metal strips. Die for edging.....	E. E. Johnson.....	229,418	June 29	1514	418	17	1485
Sheet metal to trimmers, &c. Machine for feeding.....	G. H. Perkins.....	230,962	Aug. 10	427	123	18	323
Sheet-metal-tube joint.....	G. C. Bowker.....	231,262	Aug. 17	781	218	18	387
Sheet-metal tubes. Machine for bending.....	S. W. Gear.....	230,125	July 20	725	203	18	136
Sheet-metal vessel.....	T. G. F. Dolby.....	233,080	Oct. 12	350	96	18	802
Sheet-metal vessel.....	G. W. Knapp.....	232,510	Sept. 21	772	213	18	667
Shelf-partition. Adjustable.....	H. M. Smith.....	233,042	Oct. 5	297	82	18	787
Shell. Explosive.....	G. W. Turner.....	229,499	June 29	1614	445	17	1499
Shell. Time.....	M. Coloney.....	225,459	Mar. 16	572	165	17	575
Shells. Apparatus for molding.....	W. N. Barrows.....	230,916	Aug. 10	379	110	18	316
Shells, torpedoes, &c. Time-firing mechanism for.....	M. Coloney.....	225,460	Mar. 16	573	166	17	575
Sheller:							
See Corn-sheller. Pea-sheller.							
Shelter. Portable.....	G. I. Herbert.....	225,372	Mar. 9	465	136	17	547

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Sheltering animals. Device for.....	J. O. Austin.....	235,614	Dec. 21	693	197	18	1411
Shingle-cutting machine.....	P. H. Griswold.....	224,333	Feb. 10	421	120	17	292
Shingle-drying apparatus.....	W. A. Kitts.....	228,464	June 8	359	98	17	1294
Shingle-machine.....	M. A. Bidwell.....	226,477	Apr. 13	382	108	17	822
Shingle-machine.....	E. C. Schermerhorn.....	230,070	July 13	645	180	18	114
Shingle-marking machine.....	M. McComb.....	235,095	Dec. 7	37	12	18	1287
Shingle-sawing machine.....	E. D. Greer.....	229,399	June 29	1494	{ 411 412 }	17	1482
Shingle-sawing machine.....	O. C. Hanson.....	235,233	Dec. 7	208	56, 57	18	1315
Shingle-shaving machine.....	J. L. and W. E. Alexander.....	234,217	Nov. 9	485	{ 132 133 }	18	1075
Shingler's bracket.....	C. E. Langmaid.....	230,425	July 27	1117	314	18	204
Shingling-bracket.....	S. S. Calhoun and H. I. Miller.....	235,126	Dec. 7	75	23	18	1294
Ship. Buoyant propeller.....	R. M. Fryer.....	233,086	Oct. 12	356	97, 98	18	803
Ship. Screw steam.....	T. McCarter and T. Cooper.....	235,691	Dec. 21	782	220	18	1427
Ships' boats. Automatic disconnecting-gear for.....	J. Sample.....	233,027	Oct. 5	274	75	18	783
Ships, &c. Construction of.....	E. M. Boynton.....	230,998	Aug. 10	468	133	18	329
Ships. Construction of.....	T. W. Kirby.....	230,286	July 20	918	261	18	165
Ships. Construction of.....	C. G. Lundborg.....	234,794	Nov. 23	1214	328	18	1210
Ships. Construction of.....	J. W. Sadler.....	232,651	Sept. 28	933	{ 256 257 }	18	701
Ships. Harbor-ballast for.....	J. H. Barnes.....	232,435	Sept. 21	685	189	18	652
Ships in port. Ballasting.....	P. Corvaja.....	225,800	Mar. 23	980	282	17	654
Stips overland. Apparatus for transporting.....	E. M. Deey.....	231,658	Aug. 31	1230	346	18	472
Shipping-can.....	E. M. Crandal.....	227,615	May 18	613	176	17	1101
Shipping-can.....	T. K. Webster.....	229,507	June 29	1622	447	17	1500
Shirt.....	J. F. Appell.....	224,265	Feb. 10	338	97	17	279
Shirt.....	J. F. Appell.....	228,721	June 15	702	193	17	1355
Shirt.....	C. J. Coyle.....	229,807	July 13	352	98	18	68
Shirt.....	C. A. Gilbert.....	234,558	Nov. 16	906	243	18	1154
Shirt.....	G. C. Henning.....	228,195	June 1	39	13	17	1233
Shirt.....	A. N. Horner.....	235,242	Dec. 7	218	59	18	1317
Shirt.....	A. N. Horner.....	235,875	Dec. 28	1016	281	18	1474
Shirt.....	R. H. Hutchinson.....	230,551	July 27	1259	355	18	228
Shirt.....	J. H. Kirkpatrick.....	225,616	Mar. 16	750	221	17	607
Shirt.....	J. S. Lester.....	226,080	Mar. 30	1319	372	17	721
Shirt.....	E. S. Tomlinson.....	226,464	Apr. 13	368	105	17	820
Shirt-bosom.....	S. K. Devereux.....	232,696	Sept. 28	985	271	18	709
Shirt-bosom attachment.....	L. Chnrchill.....	228,514	June 8	425	116	17	1303
Shirt-bosom supporter.....	L. Rnddick.....	233,877	Nov. 2	57	16	18	997
Shirts. Connecting neck-bands, yokes, and cuffs to.....	C. Barns.....	229,232	June 29	1289	354	17	1455
Shoe.....	E. J. Beane.....	223,576	Jan. 13	452	122	17	91
Shoe.....	W. H. Bussey.....	231,398	Aug. 24	929	262	18	418
Shoe.....	C. D. Collins.....	227,097	May 4	7	2	17	980
Shoe.....	I. Hall.....	224,528	Feb. 17	643	185	17	339
Shoe.....	A. P. Holman.....	234,187	Nov. 9	444	120	18	1068
Shoe.....	A. Nichols.....	230,649	Aug. 3	67	18	18	257
Shoe.....	W. E. Officer.....	229,172	June 22	1224	336	17	1438
Shoe.....	E. B. Preston.....	234,723	Nov. 23	1128	304	18	1197
Shoe.....	J. J. Snyder.....	228,226	June 1	76	22, 23	17	1339
Shoe.....	J. A. Weaver.....	229,290	June 29	1363	373	17	1465
Shoe.....	W. H. Wood.....	228,155	May 25	1245	353	17	1211
Shoe and hame fastener.....	T. McWatters.....	235,271	Dec. 7	253	70	18	1323
Shoe. Bathing.....	W. J. Ryckman.....	223,392	Jan. 6	206	54	17	28
Shoe-box indicator.....	L. D. Cooley.....	229,236	June 29	1294	356	17	1456
Shoe. Button.....	P. Fischer.....	233,496	Oct. 19	873	{ 241 242 }	18	897
Shoe-button fastener.....	A. G. Wilkins.....	235,974	Dec. 28	1142	316	18	1494
Shoe-clasp.....	D. Drummond.....	230,759	Aug. 3	186	54	18	277
Shoe. Engineer's.....	W. H. Mintzer.....	224,937	Feb. 24	1130	323	17	435
Shoe-fastening.....	W. Kraemer.....	225,477	Mar. 16	594	172	17	579
Shoe-fastening.....	F. and A. Schulz.....	228,946	June 15	964	262	17	1391
Shoe heel protector and supporter. Rubber.....	G. Desbrough.....	231,409	Aug. 24	939	265	18	420
Shoe-holder.....	J. C. Stoddard.....	223,822	Jan. 27	756	202	17	160
Shoe-holder and box-draw. Combined.....	C. A. Simonds.....	225,652	Mar. 16	787	231	17	613
Shoe-maker's cabinet or bench.....	J. W. Waller.....	224,253	Feb. 3	316	91	17	255
Shoe-maker's jack.....	G. M. Wells.....	223,264	Jan. 6	69	18	17	14
Shoe-nail.....	L. J. Atwood.....	234,222	Nov. 9	491	134	18	1077
Shoe-nail.....	E. S. Caswell.....	229,376	June 29	1471	405	17	1479
Shoe-nail.....	J. Hyslop, Jr.....	231,322	Aug. 17	844	237	18	397
Shoe-nail.....	S. Moore.....	232,745	Sept. 28	1041	285	18	719
Shoe-nail.....	Z. Talbot.....	228,417	June 1	284	80	17	1272
Shoe-nail wire.....	O. R. Chaplin.....	228,605	June 8	540	144	17	1320
Shoe-nails. Making.....	H. F. Whidden.....	229,292	June 29	1364	374	17	1465
Shoe or boot. Button.....	J. Hutton.....	234,283	Nov. 9	562	153	18	1088
Shoe-quarters. Machine for marking and punching holes in.....	P. R. Pickering.....	231,191	Aug. 17	699	197	18	374
Shoe. Rubber.....	D. R. Pratt.....	234,720	Nov. 23	1124	303	18	1196
Shoe-shanks. Machine for forming metallic.....	G. O. Jenkins.....	226,232	Apr. 6	98	26	17	763
Shoe. Snow.....	J. Caldwell and O. E. Huss.....	234,655	Nov. 23	1048	282	18	1184
Shoe-sole trimming and channeling machine.....	J. Smith.....	225,729	Mar. 23	891	260	17	640
Shoe support. Rubber.....	J. G. Foreman.....	228,338	June 1	206	57	17	1260
Shoe-tip.....	H. White.....	228,500	June 8	409	119	17	1301
Shoe-tree.....	C. Stoddard.....	231,200	Aug. 17	714	200	18	376
Shoes. Device for exhibiting.....	G. D. Atkins.....	235,402	Dec. 14	422	118	18	1360
Shoes. Instep-holder for.....	M. J. Ferren.....	233,841	Nov. 2	23	6	18	990
Shot. Apparatus for retailing.....	M. Stokes.....	232,378	Sept. 21	615	{ 168 169 }	18	640
Shot. Case for displaying.....	L. V. Curry.....	231,478	Aug. 24	1014	285	18	432
Shot case or tray.....	C. W. Schmieding.....	230,664	Aug. 3	84	24	18	260
Shot. Drop.....	H. J. and W. T. Wintherlich.....	236,134	Dec. 28	1337	.....	18	1526
Shot-machine.....	E. Shiver.....	228,481	June 8	387	107	17	1298
Shot. Process and machine for making drop.....	H. J. and W. T. Wintherlich.....	224,858	Feb. 24	1048	299	17	421



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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Shoulder and back brace .....	R. W. Gray .....	224,899	Feb. 24	1094	313	17	429
Shoulder-brace .....	C. A. Williamson .....	228,238	June 1	95	28	17	1242
Shovel:							
<i>See</i> Cinder-shovel.      Scoop-shovel.							
Coal-shovel.          Snow-shovel.							
Shovel .....	W. Chisholm .....	229,520	July 6	12	3	18	10
Shovel .....	W. A. Reddick .....	230,337	July 20	977	277	18	175
Shovel .....	H. M. Whitney .....	223,619	Jan. 13	501	135	17	99
Shovel-blanks. Manufacture of .....	H. M. Myers .....	229,550	July 6	53	14	18	16
Shovel-handle .....	W. Chisholm .....	227,881	May 25	936	268	17	1162
Shovel or scoop .....	W. A. Reddick .....	226,351	Apr. 6	229	66	17	787
Shovel, spade, or fork .....	W. Chisholm .....	226,493	Apr. 13	403	114	17	826
Shovel, tongs, and pot-hook. Combined .....	W. H. Peyton .....	235,804	Dec. 21	911	254	18	1449
Shovels. Manufacture of .....	C. Lewis and B. Evans .....	230,558	July 27	1266	357	18	229
Shovels, spades, and scoops. Handle-socket for .....	P. W. Groom .....	230,003	July 13	576	160	18	103
Show-box .....	O. Delisle .....	226,984	Apr. 27	1003	279	17	944
Show-box .....	F. A. Merrell .....	226,182	Apr. 6	43	11	17	753
Show-box .....	I. Neuburger .....	231,346	Aug. 17	869	244	18	401
Show-box .....	M. H. Pulaski .....	227,128	May 4	41	12	17	985
Show-box cover .....	E. W. Albee .....	229,654	July 6	162	45	18	33
Show-box for laces .....	G. L. Jaeger .....	232,273	Sept. 14	476	132	18	611
Show-case .....	G. C. Albaugh .....	226,645	Apr. 20	604	162	17	868
Show-case .....	R. B. Dando .....	233,213	Oct. 12	511	142	18	829
Show-case .....	J. S. Gold .....	226,995	Apr. 27	1017	282	17	946
Show-case .....	J. C. Wharton .....	233,308	Oct. 12	630	174	18	850
Show-case .....	T. Vaughan .....	224,562	Feb. 17	681	194	17	345
Show case and stand .....	S. A. Hoskins .....	226,857	Apr. 27	850	236	17	920
Show-case with revolving stand .....	S. H. Greenbaum .....	228,812	June 15	819	224	17	1371
Shower-bath apparatus. Portable .....	J. E. Vansant .....	225,439	Mar. 9	537	154	17	559
Shrimps and other fish. Canning .....	E. C. Pecor and F. W. Bartlett .....	226,347	Apr. 6	224	65	17	787
Shutter .....	H. Goff .....	232,813	Oct. 5	20	6	18	742
Shutter .....	J. G. Wilson .....	229,786	July 6	319	88	18	55
Shutter and operating device. Window .....	W. H. Lotz .....	224,021	Feb. 3	56	17	17	213
Shutter-bower .....	J. Broughton .....	233,974	Nov. 2	179	45	18	1016
Shutter bower and fastener. Combined .....	P. V. Stewart and E. A. Price .....	224,618	Feb. 17	756	214	17	357
Shutter-fastener .....	V. D. Dearborn .....	234,000	Nov. 2	223	60	18	1023
Shutter-fastener .....	M. Fiset .....	235,676	Dec. 21	759	216	18	1423
Shutter-fastener .....	C. Garlick .....	225,470	Mar. 9	586	170	17	578
Shutter-fastener .....	R. Hayden .....	234,126	Nov. 9	372	102	18	1055
Shutter-fastener .....	M. F. Kirk .....	227,266	May 4	205	60	17	1011
Shutter-fastener .....	C. Tenney and G. W. Walton .....	224,619	Feb. 17	757	214	17	358
Shutter-fastener .....	A. M. Walker .....	232,789	Sept. 28	1101	302	18	728
Shutter fastening. Iron .....	W. J. Fryer, Jr. ....	230,932	Aug. 10	395	114	18	319
Shutter. Fire-proof .....	W. D. Smith .....	223,401	Jan. 6	216	57	17	40
Shutter. Fire-proof .....	E. H. Walton .....	227,934	May 25	994	285	17	1171
Shutter opener. Window .....	J. R. Day .....	230,114	July 20	714	200	18	135
Shutter. Window .....	D. Huston .....	226,318	Apr. 6	193	57	17	781
Shutter-worker .....	H. J. Dickerson .....	226,045	Mar. 30	1281	361	17	716
Shutter-worker .....	R. G. Dudley .....	225,116	Mar. 2	161	46	17	484
Shutter-worker .....	N. M. Hutton .....	227,533	May 11	512	147	17	1073
Shutter-worker .....	J. B. Jewell .....	226,320	Apr. 6	194	57	17	782
Shutter-worker .....	A. M. and W. H. Johnson .....	223,354	Jan. 6	168	44	17	31
Shutter-worker .....	L. J. Lanpherc .....	230,026	July 13	600	166	18	107
Shutter-worker .....	P. K. O'Lally .....	231,677	Aug. 31	1251	352	18	475
Shuttle .....	I. Eaton .....	231,238	Aug. 17	808	226	18	391
Shuttle-spindle .....	G. E. Morrill and F. W. Sawyer .....	224,790	Feb. 24	976	277	17	409
Sickle-grinder .....	F. W. Krause .....	227,366	May 11	330	97	17	1043
Sickle-holder .....	H. L. Fisher .....	230,118	July 20	717	201	18	135
Sidewalk .....	S. P. Hodgen .....	233,348	Oct. 19	701	192	18	869
Sidewalk .....	D. Watson .....	223,784	Jan. 20	690	186	17	139
Sieve .....	E. J. McGurran .....	224,598	Feb. 17	734	208	17	354
Sieve. Flour .....	W. Huntley and A. Heine .....	232,507	Sept. 21	769	212	18	666
Sieve. Separating .....	J. H. Chase .....	227,486	May 11	463	133	17	1065
Sieves, grain-riddles, &c. Driving-gear for .....	J. D. Hobbs .....	228,758	June 15	744	205	17	1361
Sifter and bucket. Combined ash .....	C. C. Barnett .....	232,237	Sept. 14	435	119	18	604
Sifter. Ash .....	J. Benson .....	228,803	June 15	810	231	17	1369
Sifter. Ash .....	E. M. Brewster .....	229,371	June 29	1466	404	17	1478
Sifter. Ash .....	J. Dorsch .....	231,659	Aug. 31	1232	346	18	473
Sifter. Ash .....	E. P. Follett .....	231,030	Aug. 10	505	142	18	335
Sifter. Ash .....	J. T. Hastings .....	234,033	Nov. 2	258	70	18	1028
Sifter. Ash .....	M. B. Hudson .....	235,361	Dec. 14	374	103	18	1351
Sifter. Ash .....	A. Kastner .....	235,089	Dec. 7	32	10	18	1286
Sifter. Ash .....	A. F. Morse and G. F. McIntosh .....	234,319	Nov. 9	600	163	18	1095
Sifter. Coal .....	J. F. Andrews .....	235,061	Dec. 7	1	1	18	1281
Sifter. Coal .....	I. F. Harris .....	226,913	Apr. 27	919	255	17	931
Sifter. Domestic .....	F. C. Hesse .....	231,718	Aug. 31	1298	365	18	483
Sifter. Flour .....	G. A. Wells .....	231,382	Aug. 17	906	255	18	407
Sifter. Flour and meal .....	P. J. Spragno .....	232,562	Sept. 21	823	228	18	676
Sifter for ashes, &c .....	J. H. Chaso .....	227,487	May 11	465	133	17	1065
Sifter. Rotary coal .....	J. L. Koplin .....	224,341	Feb. 10	428	122 } 123 }	17	293
Sifter. Scoop .....	W. J. Johnson .....	233,770	Oct. 26	1206	335	18	964
Sign .....	J. O. Belknap .....	231,983	Sept. 7	137	35	18	546
Sign .....	H. J. Blowney .....	223,698	Jan. 20	599	160	17	124
Sign .....	L. Dobbelaar .....	226,724	Apr. 20	685	191	17	882
Sign .....	E. A. Evans .....	223,493	Jan. 13	355	94	17	75
Sign .....	E. Grah .....	230,268	July 20	900	256	18	163
Sign .....	N. Stow .....	225,889	Mar. 23	1072	306	17	669
Sign. Changeable .....	J. F. Ross .....	235,652	Dec. 21	733	209	18	1419
Sign hanger and support. Combined .....	E. A. Goodes .....	233,224	Jan. 6	18	4	17	5
Sign. Street .....	E. J. Hardy .....	230,007	July 13	581	161	18	104
Sign. Transparent .....	H. Child .....	225,568	Mar. 16	696	204	17	597
Signs. Spacing and lettering .....	J. J. Callow .....	229,952	July 13	517	143	18	94

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Signal:							
See Car-signal.	Railway time-signal.						
Danger-signal.	Railway-train signal.						
Railway-signal.	Telephone-signal.						
Railway-switch signal.	Time-signal.						
nal.	Water-closet signal.						
Signal-conveyer for hotels and other buildings	J. C. Beard	229,081	June 22	1132	307	17	1424
Silk beating and washing machine	A. Urbahn	223,261	Jan. 6	66	17	17	14
Silk, &c. Machine for beating and washing	J. E. Bolton	223,430	Jan. 13	275	73	17	63
Silk-reel	S. Brooks	232,330	Sept. 21	553	153	18	630
Silver from ores. Extracting	G. A. Koening	235,784	Dec. 21	885	247	18	1444
Sink	G. and C. Hayes	233,674	Oct. 26	1103	307	18	946
Sink-outlet cover	J. W. Grows	234,402	Nov. 16	724	195	18	1124
Sink-support	R. Lovo	229,154	June 22	1208	331	17	1435
Sink-trap	E. W. Anthony	225,503	Mar. 16	620	180	17	583
Sink-trap	J. H. Langschmidt	233,104	Oct. 12	386	181	18	808
Sinking tubes and running tunnels and drifts by } pneumatic pressure.	H. R. Leonard	235,955	Dec. 28	1121	309	18	1491
Siphon	S. Clemenshaw and B. W. Randall	224,149	Feb. 3	201	58	17	237
Sirup-fountain. Automatic	W. W. Robbins	230,717	Aug. 3	141	42	18	269
Skate	E. H. Barney	235,492	Dec. 14	536	154	18	1379
Skate	W. E. Farnham	234,862	Nov. 30	1305	352	18	1232
Skate	J. H. Forshay	225,276	Mar. 9	342	100	17	529
Skate-clamp	J. H. Forshay	231,905	Sept. 7	33	7	18	530
Skate. Combined runner and roller	E. Chesterman	226,835	Apr. 27	821	229	17	915
Skate-fastener. Heel	E. S. Coon	233,204	Oct. 12	501	138	18	828
Skate. Roller	E. H. Barney	235,666	Dec. 21	749	213	18	1421
Skate. Roller	A. French	225,361	Mar. 9	453	132	17	545
Skate. Roller	W. P. Grogg	233,845	Nov. 2	24	6	18	990
Skate. Roller	M. C. Henley	234,404	Nov. 16	726	196	18	1124
Skate. Roller	J. Mackay	235,887	Dec. 28	1033	285	18	1476
Skate. Roller	G. Rosh, Jr.	229,011	June 22	1058	288	17	1413
Skate. Roller	S. M. Tinkham	236,113	Dec. 28	1309	361	18	1522
Skate. Roller	S. Winslow	230,094	July 13	667	187	18	117
Skipping-rope	J. B. Flynt and A. Young	233,221	Oct. 12	526	146	18	832
Skirt-supporter	C. A. Smith and J. Nall	229,483	June 29	1599	440	17	1497
Skiving-machine	F. M. Carter	225,340	Mar. 9	432	126	17	542
Skiving-machine	W. S. Fitzgerald	223,183	June 1	24	7, 8	17	1231
Skylight	F. M. Campbell and A. C. Dunlevy	228,443	June 8	333	91	17	1290
Skylight	J. W. Geddes	232,399	Sept. 21	638	176	18	644
Skylight	J. M. Lutz	235,367	Dec. 14	381	105	18	1352
Skylight	W. D. Smith	228,282	June 1	151	42	17	1251
Skylight-bar	F. Ruemping	230,822	Aug. 3	256	73	18	289
Slate. Book	R. C. Pruyn and C. M. Hyatt	227,574	May 11	560	160	17	1081
Slate-cleaner	G. Elsey	231,482	Aug. 24	1018	286	18	433
Slate-cleaner	L. J. Halbert	233,238	Oct. 12	543	151	18	835
Slate-dressing machine	F. Shenton	226,795	Apr. 20	758	212	17	894
Slate-frame	M. W. Brown	227,674	May 18	678	194	17	1110
Slate-frame	J. B. Jewell	226,319	Apr. 6	194	57	17	781
Slate-frame	G. B. Thompson	227,662	May 18	664	189	17	1108
Slate-frame. Noiseless	W. S. Davis	223,636	Jan. 20	530	143	17	114
Slate. Hinged	H. L. Rowell	224,306	Feb. 10	388	109	17	287
Slate. Hinged	A. V. Stewart	224,965	Feb. 24	1156	331	17	439
Slate. Manufacture of artificial	H. Reinhold	236,083	Dec. 28	1266	18	1515	
Slate. Reversible	S. Reed	228,559	June 8	483	129	17	1312
Slate-sawing machine	L. B. Clogston	232,000	Sept. 7	152	40	18	548
Slate. School	N. Du Brul	225,215	Mar. 9	275	79	17	517
Slate. School	C. F. Rapp	232,416	Sept. 21	661	182	18	648
Slate-washer	S. S. Newton	224,033	Feb. 3	68	21	17	215
Slate-washer	J. A. Smith	233,612	Jan. 13	492	132	17	98
Slaughtering apparatus	H. P. Rankin	233,698	Oct. 26	1128	315	18	950
Sled	F. W. Zurburg	231,746	Aug. 31	1334	375	18	488
Sled. Bob	C. E. Cain	231,267	Aug. 17	787	220	18	387
Sled. Bob	C. Cogswell	234,963	Nov. 30	1430	384	18	1253
Sled-brake	I. E. Davenport	234,252	Nov. 9	521	143	18	1082
Sled-brake	L. Sird	224,615	Feb. 17	752	213	17	357
Sled for hauling fodder	W. H. Woods	228,967	June 15	984	268	17	1394
Sled-propeller	G. Heckel	234,774	Nov. 23	1191	321	18	1267
Sled-propeller	A. Hitchiner and J. W. Heaton	224,432	Feb. 10	529	153	17	316
Sleeve	A. J. Tower	228,790	June 15	788	216	17	1367
Sleeve-pattern	M. A. Taylor	234,821	Nov. 23	1251	336	18	1216
Sleigh	T. Buckingham	233,200	Oct. 12	498	137	18	827
Sleigh	B. Burr	231,397	Aug. 24	928	262	18	418
Sleigh	A. B. Webster	234,104	Nov. 2	332	92	18	1042
Sleigh-bell strap	C. G. Bevin	228,508	June 8	413	114	17	1302
Sleigh. Bob	W. Hughes	226,518	Apr. 13	440	123	17	831
Sleigh. Bob	C. R. Walkley	233,585	Oct. 19	977	270	18	915
Sleigh. Fur-covered	M. S. Davis	233,331	Oct. 19	679	187	18	865
Sleigh-knee	J. C. Storm	227,455	May 11	427	121	17	1058
Sliding and swinging gate hanger	S. A. Rico	226,112	Mar. 30	1356	381	17	727
Sliding gate	A. F. Miller	225,295	Mar. 9	382	111	17	533
Sliding gate. Portable	J. H. Conrad	232,940	Oct. 5	172	45	18	766
Slop jar or bucket	J. Solter	226,562	Apr. 13	485	136	17	838
Slop-jars, &c. Cover for	R. W. Bornemann	227,091	May 4	1	1	17	979
Sluice-box for saving gold	M. M. Murray	234,887	Nov. 30	1337	360	18	1237
Sluiceway-gate	T. Parker	226,455	Apr. 13	358	102	17	818
Smelting-furnace	N. Armstrong, E. C. Atkins, and H. F. Brown	223,852	June 15	865	236	17	1577
Smelting-furnace	W. Fields	227,510	May 11	486	140	17	1069
Smelting furnace. Ore	R. Hinvest	233,854	Nov. 2	34	9	18	992
Smelting furnace. Ore	D. W. Jansen	223,818	June 15	825	225	17	1371
Smoke and cinder conveyer for locomotives	J. S. Lloyd	227,550	May 11	529	153	17	1076
Smoke and dust arrester for railway-cars	L. B. White and L. Henderson	225,418	Mar. 9	545	157	17	566

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & G.	Vol.	Page.
Smoke and gas consuming furnace.....	W. C. P. Bissell.....	234,385	Nov. 16	702	189	18	1120
Smoke-bell.....	A. C. Kendel.....	231,587	Aug. 24	1141	319	18	451
Smoke box and stack for locomotives.....	J. E. Sampsel.....	227,657	May 18	659	187	17	1107
Smoke-conductor for railway-trains.....	E. T. Watkins.....	235,474	Dec. 14	516	149	18	1375
Smoke-consuming furnace.....	D. Sinton.....	233,168	Oct. 12	460	126 127	18	821
Smoke-stack.....	S. E. Babcock.....	230,217	July 20	833	235	18	153
Smoke-stack.....	H. Brown.....	226,439	Apr. 13	341	98	17	816
Smoke-stack.....	A. W. La France.....	227,272	May 4	210	61	17	1012
Smoke-stack.....	A. Staples.....	230,673	Aug. 3	94	27	18	262
Smoke-stack. Locomotive.....	J. W. Evans.....	234,911	Nov. 30	1368	367	18	1242
Smoke-stack. Locomotive.....	G. S. Strong.....	235,825	Dec. 21	934	261	18	1453
Smoker's kit.....	T. V. Curtis.....	228,325	June 1	192	54	17	1258
Smoking-pipe.....	G. K. Rix.....	224,107	Feb. 3	158	45	17	229
Smut-mill.....	T. Ryan.....	230,343	July 20	983	279	18	176
Snap-hook.....	C. B. Bristol.....	226,029	Mar. 30	1262	356	17	713
Snap-hook.....	W. Collins and C. F. Penniman.....	235,072	Dec. 7	14	4	18	1283
Snap-hook.....	W. Grassick.....	228,628	June 8	566	150	17	1324
Snap-hook.....	A. S. Henn.....	229,885	July 13	443	122	18	82
Snap-hook.....	J. Jenkins.....	229,137	June 22	1192	326	17	1433
Snap-hook.....	F. Kortick.....	225,756	Mar. 23	929	269	17	646
Snap-hook.....	D. Minogue.....	230,800	Aug. 3	233	67	18	284
Snap-hook.....	G. D. Mosher.....	223,858	Jan. 27	799	214	17	167
Snap-hook.....	G. D. Mosher.....	231,496	Aug. 24	1035	290	18	435
Snap-hook.....	A. H. Moulton, Jr.....	234,716	Nov. 23	1120	302	18	1196
Snap-hook.....	J. E. Wightman.....	224,622	Feb. 17	760	215	17	358
Snap-hook.....	J. E. Wightman.....	224,856	Feb. 24	1047	298	17	421
Snap-hook and buckle.....	G. E. Bales.....	234,738	Nov. 23	1146	308	18	1200
Snap-hook and rope-clasp.....	L. J. Bailey and L. H. Thompson.....	231,751	Aug. 31	1340	377	18	489
Snatch-block.....	T. R. Ferrall.....	235,222	Dec. 7	198	54	18	1313
Snath-bending machine.....	K. J. Ruff.....	232,547	Sept. 21	810	224	18	673
Snow and ice from railways and streets. Apparatus for removing.....	E. H. Angamar.....	232,225	Sept. 14	417	115	18	601
Snow and ice from railways. Apparatus for removing.....	E. H. Angamar.....	229,936	July 13	500	139	18	91
Snow-clearer for railway-tracks, &c.....	J. W. Close.....	226,222	Apr. 6	85	22	17	761
Snow-clearer for railway-tracks. Rotary.....	J. W. Close.....	225,917	Mar. 30	1115	319	17	691
Snow from railway-tracks. Removing.....	C. G. Cross.....	231,002	Sept. 7	29	6	18	529
Snow from railways. Apparatus for removing.....	D. M. McMaster.....	229,266	June 29	1328	365	17	1460
Snow-plow.....	D. M. Horton.....	227,011	Apr. 27	1035	287	17	950
Snow-plow.....	I. L. Rosenfeld.....	227,841	May 18	865	247	17	1139
Snow-plow.....	W. Savage.....	234,814	Nov. 23	1243	334	18	1215
Snow-scraper.....	G. F. Bond.....	235,201	Dec. 7	175	48	18	1310
Snow-scraping machine.....	G. B. Gruman.....	234,470	Nov. 16	802	215	18	1137
Snow-shovel.....	H. Clark.....	232,456	Sept. 21	712	197	18	656
Snuff. Catarrh.....	G. H. Buck.....	233,656	Oct. 26	1084	.....	18	942
Snug-pattern. Dovetailed.....	A. Ransom and M. Cassidy.....	223,540	Jan. 13	408	109	17	84
Soap, &c. Adjustable cutter for cutting.....	I. M. O'Donel.....	227,643	May 18	644	184	17	1105
Soap and other materials. Apparatus for mixing.....	W., Sr., W., Jr., and A. W. Cornwall.....	228,320	June 1	188	53	17	1257
Soap. Apparatus for manufacturing.....	B. H. Chadbourne.....	224,514	Feb. 17	628	181	17	337
Soap. Compound.....	E. Lyon.....	226,920	Apr. 27	931	.....	17	933
Soap. Fluid.....	E. W. Lincoln.....	225,400	Mar. 9	499	.....	17	553
Soap. Machine for mixing materials for making.....	W., Sr., W., Jr., and A. W. Cornwall.....	228,319	June 1	187	52	17	1257
Soap. Manufacture of.....	L. Bastet.....	232,922	Oct. 5	154	.....	18	763
Soap. Perforated.....	H. J. Borio.....	235,730	Dec. 21	826	231	18	1434
Soap-press.....	C. L. Ingalls.....	225,287	Mar. 9	372	109	17	531
Soap. Process and apparatus for remelting.....	W., Jr., and A. W. Cornwall.....	228,321	June 1	189	53	17	1257
Sod-cutter.....	M. S. Bettico.....	225,324	Mar. 9	417	121	17	539
Soda. Closing drums containing caustic.....	F. H. Mort.....	230,646	Aug. 3	61	17	18	257
Soda-fountain.....	A. D. and L. W. Puffer.....	226,103	Mar. 30	1345	379	17	726
Soda-fountain.....	A. D. Puffer, Jr.....	226,195	Apr. 6	56	14	17	756
Soda-fountain. Portable.....	S. M. Kellogg and E. T. Sheldon.....	232,187	Sept. 14	372	103	18	593
Soda from spent liquors after treating vegetable fiber. Recovering.....	C. C. Markle and J. Jordan.....	229,264	June 29	1326	.....	17	1460
Soda. Manufacture of bicarbonate of.....	W. J. Menzies.....	227,032	Apr. 27	1062	.....	17	954
Soda. Manufacture of bicarbonate of.....	W. J. Menzies.....	227,561	May 11	542	.....	17	1078
Soda. Manufacture of sulphate of.....	W. J. Menzies.....	224,101	Feb. 3	152	.....	17	228
Soda-water and other similar apparatus. Cooler for.....	M. S. Andrews.....	233,462	Jan. 13	314	84	17	69
Soda-water apparatus.....	W. H. Collins.....	232,803	Oct. 5	7	2, 3	18	740
Soda-water. Apparatus for generating gas for.....	J. Collins.....	228,315	June 1	183	51	17	1257
Soda-water-dispensing apparatus.....	A. D. Puffer.....	231,447	Aug. 24	984	277	18	427
Soda-water-dispensing apparatus. Sirup-tank for.....	J. Matthews.....	231,921	Sept. 7	50	12	18	533
Soda-water, &c. Draft-tube for drawing.....	W. P. Clark.....	229,304	June 29	1362	379	17	1468
Soda-water receivers and generators. Agitator for.....	A. D. Puffer.....	231,847	Aug. 31	1459	410	18	503
Solar heater.....	J. P. Mauzey.....	227,023	Apr. 27	1057	293	17	953
Soldering apparatus.....	J. Campen.....	232,681	Sept. 28	968	266	18	706
Soldering apparatus.....	J. J. Johnston.....	226,404	Apr. 13	296	86	17	809
Soldering apparatus. Can.....	E. Norton.....	232,409	Sept. 21	651	179	18	646
Soldering apparatus. Can.....	F. Westerbeck.....	225,543	Mar. 16	668	195	17	591
Soldering cans.....	E. Norton.....	233,688	Oct. 26	1117	311 312	18	948
Soldering cans. Device for.....	A. B. Richardson.....	232,065	Sept. 7	225	62	18	561
Soldering-coppers. Furnace for heating.....	W. G. Alexander and G. A. Wells.....	229,935	July 13	498	138	18	91
Soldering fruit-cans. Flexible cylinder for.....	C. B. Adkerson.....	232,223	Sept. 14	415	115	18	601
Soldering-iron.....	C. M. Dravo.....	226,602	Apr. 20	551	154	17	860
Soldering-iron.....	J. J. Henry.....	223,849	Jan. 27	784	209	17	164
Soldering-iron.....	W. C. Smith and B. D. Joslin.....	228,000	May 25	1084	308	17	1185
Soldering-iron.....	V. Storch.....	236,106	Dec. 28	1298	356	18	1520
Soldering-iron heater.....	J. S. Hull.....	226,753	Apr. 20	718	200	17	887
Soldering-iron heater.....	G. Quinton.....	230,655	Aug. 3	72	20	18	258
Soldering-irons. Rotary benzine-furnace for heating.....	G. H. Perkins.....	234,424	Nov. 16	748	202	18	1128
Soldering-machine.....	J. A. Forbes.....	233,408	Oct. 19	777	214	18	881
Soldering-machine.....	G. R. Gleason.....	227,164	May 4	90	24, 25	17	993
Soldering-machine.....	C. R. Merriam.....	229,546	July 6	49	13	18	15
Soldering-machine.....	G. H. Perkins.....	227,826	May 18	850	240	17	1137

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & Co.	Vol.	Page.
Soldering machine. Can.....	W. D. Brooks.....	228,864	June 15	879	{ 239 240	17	1379
Soldering machine. Can.....	W. D. Brooks.....	234,048	Nov. 30	1409	{ 378 379	18	1249
Soldering machine. Can.....	W. D. Brooks.....	234,949	Nov. 30	1412	{ 379 380	18	1249
Soldering machine. Can.....	T. H. Hamilton.....	235,428	Dec. 14	459	130	18	1366
Soldering machine. Can.....	J. S. Hull.....	232,503	Sept. 21	764	211	18	665
Soldering machine. Can.....	J. O'Loughlin.....	235,004	Nov. 30	1479	{ 397 398	18	1261
Soldering square cans. Machine for.....	T. H. Hamilton.....	233,673	Oct. 26	1102	306	18	945
Soldering tin cans. Apparatus for.....	D. Palmer.....	223,046	Jan. 27	905	241	17	183
Soldering-tool.....	J. Campen.....	232,936	Oct. 5	168	44	18	766
Soldering-tool.....	D. Palmer.....	223,945	Jan. 27	904	240	17	183
Soldering-tool.....	W. Painter.....	223,533	Jan. 13	399	106	17	83
Sole-channeling machine.....	M. Griffin.....	234,272	Nov. 9	550	150	18	1086
Sole-channeling machine.....	M. Griffin.....	235,525	Dec. 14	580	165	18	1386
Sole-edge-burnishing machine.....	A. Seaver.....	227,308	May 4	247	72	17	1018
Sole-edge-burnishing machine.....	B. J. Tayman and J. Benner.....	234,504	Nov. 16	838	224	18	1142
Sole-fastenings. Machine for driving.....	O. R. Chaplin.....	231,149	Aug. 17	643	182	18	365
Sole-leveling machine.....	O. Gilmore.....	231,707	Aug. 31	1283	361	18	480
Sole or welt trimmers. Cutter for.....	I. A. Dunham.....	235,075	Dec. 7	17	5	18	1283
Soles. Machine for attaching out.....	M. Brock and E. Woodward.....	234,167	Nov. 9	417	{ 113 114	18	1063
Sound-articulator.....	O. D. Orvis.....	227,644	May 18	645	184	17	1105
Sound. Device for refracting, re-enforcing, and modulating.....	A. C. Engert.....	231,292	Aug. 17	812	227	18	392
Sound-transmission. Vibrating surface for.....	T. A. Watson.....	232,862	Oct. 5	78	22	18	752
Sounding apparatus. Deep-sea.....	P. C. Rousset.....	230,661	Aug. 3	81	23	18	259
Soup compound.....	J. F. Tyrrell.....	233,716	Oct. 26	1150	.....	18	953
Sower and seeder. Combined guano.....	W. T. Hildrup and A. Tschop.....	231,669	Aug. 31	1242	349	18	474
Sower. Clover and grass seed.....	J. H. Davis.....	230,754	Aug. 3	181	53	18	276
Sower. Fertilizer.....	A. Stoler.....	235,714	Dec. 21	807	227	18	1431
Sower. Hand seed.....	H. Hill.....	224,909	Feb. 24	1105	316	17	431
Sower. Seed.....	W. S. Morgan.....	226,413	Apr. 13	304	88	17	811
Sower. Seed.....	T. B. Rogers.....	232,762	Sept. 28	1061	290	18	722
Spacing and dividing instrument.....	A. K. Fulton.....	235,225	Dec. 7	202	55	18	1314
Spade.....	H. M. Myers.....	229,549	July 6	53	14	18	16
Spark-arrester.....	J. D. Brown.....	227,410	May 11	376	111	17	1050
Spark-arrester.....	H. R. Campbell.....	228,442	June 8	332	91	17	1290
Spark-arrester.....	G. B. F. Cooper.....	225,572	Mar. 16	699	{ 205 206	17	598
Spark-arrester.....	R. S. Craig and G. G. Wyman.....	225,209	Mar. 9	269	77	17	516
Spark-arrester.....	R. S. Craig and G. G. Wyman.....	233,400	Oct. 19	766	211	18	880
Spark-arrester.....	E. Dunn and R. H. Havenner.....	227,420	May 11	386	113	17	1052
Spark-arrester.....	D. Grosbeck.....	235,762	Dec. 21	862	241	18	1440
Spark-arrester.....	G. A. Gunther and W. Kowalski.....	235,230	Dec. 7	206	56	18	1315
Spark-arrester.....	J. Kirkland.....	223,362	Jan. 6	176	46	17	32
Spark-arrester.....	K. F. W. Neuhaus.....	228,922	June 15	939	255	17	1387
Spark-arrester.....	A. Pohl.....	230,568	July 27	1276	359	18	231
Spark-arrester.....	D. R. Proctor.....	231,610	Aug. 24	1165	326	18	455
Spark-arrester.....	H. A. Ridley.....	233,022	Oct. 5	269	74	18	782
Spark-arrester.....	M. Rumely.....	227,656	May 18	659	187	17	1107
Spark-arrester.....	J. M. Russell and D. Burgess.....	229,642	July 6	147	42	18	30
Spark-arrester.....	D. B. Stalker.....	225,886	Mar. 23	1068	305	17	669
Spark-arrester.....	G. Stewart.....	223,403	Jan. 6	218	58	17	40
Spark-arrester.....	J. B. Suitt.....	224,802	Feb. 24	989	280	17	411
Spark-arrester.....	J. B. Suitt.....	224,803	Feb. 24	990	280	17	411
Spark-arrester.....	R. F. Swan.....	233,171	Oct. 12	464	128	18	821
Spark-arrester.....	W. M. K. Thornton.....	229,207	June 22	1261	346	17	1443
Spark-arrester.....	D. J. Timlin.....	234,349	Nov. 9	632	172	18	1160
Spark-arrester.....	J. E. Wiggin.....	224,497	Feb. 10	597	173	17	321
Spark-arrester.....	J. E. Wiggin.....	226,378	Apr. 6	255	74	17	792
Spark-arrester.....	M. Zeck.....	223,427	Jan. 6	245	65	17	45
Spark-arrester for car-windows.....	G. Williams.....	228,847	June 15	858	234	17	1376
Spark-arrester. Locomotive.....	D. P. Wright.....	228,431	June 1	298	84	17	1274
Spark-arrester. Steam-boiler.....	A. Delaney.....	224,001	Feb. 3	33	10	17	208
Spark-controlling stack for boilers.....	J. W. Pearce.....	223,605	Jan. 13	481	130	17	96
Spark-extinguisher.....	G. L. Blewett.....	225,326	Mar. 9	419	121	17	539
Spark-extinguisher. Locomotive.....	G. A. Gunther and W. Kowalski.....	234,274	Nov. 9	552	150	18	1037
Speaking and signaling apparatus. Combined house.....	C. Heisler.....	225,055	Mar. 2	96	26	17	472
Speaking-tube.....	J. Capron.....	223,434	Jan. 13	280	74	17	63
Speaking-tube mouth-piece and bell-lever.....	W. R. Ostrander.....	235,285	Dec. 7	267	74	18	1325
Spectacle-frame.....	T. A. Willson and G. W. Meigs.....	232,795	Sept. 28	1106	303	18	729
Spectulum. Rectal.....	A. W. Brinkerhoff.....	224,991	Mar. 2	10	3	17	458
Speed indicator and recorder.....	F. Petri.....	229,456	June 29	1558	{ 429 430	17	1492
Speed-regulator.....	H. R. Barnhurst.....	224,764	Feb. 24	938	268	17	404
Sphygmophone.....	W. H. H. Barton.....	232,105	Sept. 14	278	78	18	577
Spikes. Machine for twisting.....	S. H. Wilson.....	227,084	Apr. 27	1130	310	17	963
Spindle: See Loom-shuttle spin- dle. Spinning-frame spindle.							
Shuttle-spindle.....							
Spindle and method of lubricating the same.....	C. H. Chapman.....	233,474	Oct. 19	852	235	18	893
Spindles. Machine for grinding.....	A. Ball.....	228,590	June 8	524	140	17	1318
Spinner's staples. Cleaning and opening.....	S. D. Keene.....	229,256	June 29	1319	363	17	1459
Spinning and twisting machines. Thread board and guide for.....	J. C. Stanley.....	226,126	Mar. 30	1371	386	17	730
Spining. Apparatus for preventing waste in.....	W. Garnett and T. Smith.....	232,021	Sept. 7	175	46	18	553
Spinning-frame bobbins. Yarn-fastener for.....	J. W. Cunnock.....	223,801	Jan. 27	727	196	17	156
Spinning frame. Ring.....	T. Mayor.....	224,344	Feb. 10	431	{ 123 124	17	294
Spinning frame. Ring.....	C. S. Peach.....	226,346	Apr. 6	223	65	17	766

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Spinning-frame spindle .....	G. E. Taft .....	225,181	Mar. 2	224	63	17	495
Spinning-frame spindle and bolster .....	J. H. Mackintosh .....	229,157	June 22	1211	332	17	1436
Spinning-frame spindles. Mechanism for supporting ring .....	W. Mason .....	230,306	July 20	939	267	18	169
Spinning-frame spindles. Mechanism for supporting, &c., ring .....	J. W. Wattles .....	234,897	Nov. 30	1349	363	18	1239
Spinning-frames, &c. Mechanism for compressing drawing-rolls of .....	P. C. Dawson .....	235,936	Dec. 28	1096	303	18	1487
Spinning frames. Mechanism for supporting the spindles of ring .....	J. Birkenhead .....	234,522	Nov. 16	839	229	18	1146
Spinning frames. Yarn-protector and traveler-clearer for ring .....	J. W. Wattles .....	233,650	Oct. 26	1077	299	18	941
Spinning-machine .....	J. H. Allen .....	227,873	May 25	925	265	17	1161
Spinning-machine .....	S. Keisling and T. N. Babb .....	224,700	Feb. 17	841	239	17	373
Spinning-machine .....	T. Mitchell .....	223,748	Jan. 20	649	174	17	133
Spinning-machine .....	H. Schock and G. Keller .....	223,865	Jan. 27	806	216	17	168
Spinning-machine flier .....	J. F. Foss .....	228,809	June 15	815	223	17	1370
Spinning machine. Ring .....	A. Howland and H. Lawton .....	223,674	Jan. 20	573	154	17	120
Spinning-machine spindle .....	W. C. Macomber .....	232,522	Sept. 21	784	217	18	669
Spinning-machine stop-motion .....	T. Coltman .....	232,240	Sept. 14	438	121	18	605
Spinning-machines. Spindle-adjusting mechanism for .....	W. T. Carroll .....	223,992	Feb. 3	21	8	17	206
Spinning machines. Under-clearer spring for cotton-spinning machinery. Automatic roving piecer and breaker for .....	J. Brown .....	227,609	May 18	605	174	17	1099
Spinning-mulo. Self-acting .....	H. C. Grayson .....	227,427	May 11	396	115	17	1053
Spinning or twisting yarns or strands of cordage. Flier of .....	H. Hendry .....	225,984	Mar. 30	1207	342	17	704
Spinning ring and frame .....	W. C. Boone .....	231,471	Aug. 24	1006	283	18	431
Spinning ring and holder .....	E. Harris .....	232,818	Oct. 5	25	7,8	18	743
Spinning-ring blanks. Device for making .....	C. B. Morse .....	226,242	Apr. 6	109	30	17	705
Spinning-spindle .....	C. B. Morse .....	230,888	Aug. 10	350	101	18	311
Spinning-spindle and bearing .....	G. H. Noble .....	224,216	Feb. 3	279	80	17	250
Spinning-spindle bolster .....	F. J. Rabbeth .....	227,129	May 4	42	13	17	985
Spinning-spindle bolster .....	R. Gillman .....	223,724	Jan. 20	623	167	17	128
Spinning-spindles. Bearing for .....	D. M. Smith .....	227,066	Apr. 27	1108	305	17	960
Spinning-wheel .....	J. S. Raworth .....	226,789	Apr. 20	753	210	17	893
Spirit-meters. Recording apparatus for .....	J. G. Church .....	229,093	June 22	1144	312	17	1426
Spirits. Rectifying .....	J. M. Cayce .....	224,147	Feb. 3	198	57	17	236
Spirituous liquors. Treating .....	C. Kalthoff .....	231,328	Aug. 17	849	18	398	
Spirometer .....	A. M. Sawyer .....	232,071	Sept. 7	234	64	18	562
Spittoon .....	J. P. Marsh .....	225,710	Mar. 23	870	255	17	637
Spittoon and table or tray holder. Adjustable .....	J. Cohn .....	232,391	Sept. 21	629	173	18	643
Spoke-driving machine .....	E. T. Starr .....	233,170	Oct. 12	462	127	18	821
Spoke-finishing machine .....	C. A. Merrill .....	224,026	Feb. 3	62	19	17	214
Spoke-socket .....	F. A. Savage .....	230,663	Aug. 3	83	23	18	260
Spoke-tenoning machine .....	J. A. Harrington .....	232,267	Sept. 14	470	130	18	610
Spoke-tenoning machine .....	T. Connor .....	224,393	Feb. 10	485	139	17	303
Spoke-tenons. Machine for trimming .....	W. H. Davis .....	232,340	Sept. 21	563	155	18	632
Spoke-throating machine .....	A. P. Ahnquist .....	234,937	Nov. 30	1394	375	18	1247
Spoke-throating machine .....	O. Allen .....	230,983	Aug. 10	455	130	18	327
Spokes. Gage for sawing .....	W. H. Doano and G. W. Bugbee .....	225,355	Mar. 9	447	130	17	544
Sponge-holder .....	J. Dewitz .....	231,546	Aug. 24	1092	306	18	443
Sponge-moistener .....	G. Goetting .....	234,124	Nov. 9	370	102	18	1055
Spool-box .....	J. J. Doyle .....	229,680	July 6	192	53	18	36
Spool-support .....	C. Töllner .....	228,289	June 1	159	44	17	1252
Spooling-machine thread-guide .....	W. S. Auchincloss .....	233,131	Oct. 12	418	115	18	813
Spooling-machine yarn-guide .....	C. G. Trafton .....	230,509	July 27	1213	342	18	220
Spoon .....	G. W. D. Upton and A. Partridge .....	231,380	Aug. 17	904	254	18	407
Spoon-handle attachment .....	G. P. Benjamin .....	225,789	Mar. 23	965	278	17	652
Spoon. Medicine .....	S. S. Bolton .....	230,461	July 27	1163	328	18	212
Spoons and forks from celluloid and analogous material. Manufacture of .....	T. M. Baker .....	233,185	Oct. 12	480	132	18	824
Spoons. Device for plating .....	M. C. Lefferts .....	235,954	Dec. 28	1121	18	1491	
Spoons. Manufacture of sheet-metal .....	P. Concannon .....	225,571	Mar. 16	698	205	17	598
Spout and trap therefor. Cistern .....	P. Lesson .....	232,832	Oct. 5	47	14	18	746
Spout. Sap .....	J. M. Hicks .....	232,820	Oct. 5	30	8	18	743
Spout. Sap .....	S. A. Pierce .....	225,762	Mar. 23	934	270	17	647
Spout. Sap .....	E. W. Savage .....	224,229	Feb. 3	291	84	17	252
Spray-dampener .....	I. H. Spelman .....	234,437	Nov. 16	761	205	18	1130
Spraying water. Implement for .....	H. Humphreville .....	225,056	Mar. 2	97	27	17	472
Spring .....	A. Iske .....	232,131	Sept. 14	302	85	18	582
See Bed-spring. Piston-spring.							
Bed-bottom spring. Platform-spring.							
Bedstead-spring. Torsion-spring.							
Car-spring. Upholstering-spring.							
Carriage-spring. Vehicle-spring.							
Cotset-spring. Vehicle-seat spring.							
Door-spring. Wagon-spring.							
Locomotive-spring. Watch-case spring.							
Spring-bumper .....	R. W. Irwin .....	232,723	Sept. 28	1015	279	18	714
Spring-coupling .....	H. B. Etter .....	226,446	Apr. 13	348	100	17	817
Spring-motor .....	J. A. Forbes .....	229,113	June 22	1164	319	17	1429
Spring-motor .....	N. N. Horton .....	229,887	July 13	445	122	18	83
Spring-motor .....	C. Rogers .....	230,576	July 27	1283	361	18	233
Spring-motor .....	J. Warren .....	226,813	Apr. 20	780	217	17	897
Spring-motor for operating churns, &c. ....	J. H. Tabler .....	229,926	July 13	488	136	18	89
Spring or bulk-head. Artificial .....	A. A. Crane .....	231,213	Aug. 17	729	204	18	378
Spring-roller .....	W. L. Ormsby .....	233,429	Oct. 19	801	221	18	885
Spring-saddle clip .....	T. W. Porter .....	235,807	Dec. 21	914	255	18	1449
Springs. Apparatus for tempering coiled .....	W. P. Hansell .....	233,242	Oct. 12	547	152	18	836



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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Springs. Machine for shaping and fitting.....	C. F. Shoemaker.....	223,454	Jan. 13	301	80	17	67
Springs. Making spiral.....	A. R. Wilbur.....	234,830	Nov. 23	1263	339	18	1219
Sprinkler:							
See Clothes-sprinkler. Street-sprinkler.							
Lawn-sprinkler.							
Sprinkler.....	W. D. Ames.....	231,950	Sept. 7	87	22	18	538
Sprinkler.....	E. B. Norton.....	224,944	Feb. 24	1137	325	17	436
Sprinklev.....	F. T. Pinter.....	233,431	Oct. 19	803	222	18	886
Sprinkling apparatus.....	J. P. Fairchild and W. H. Miller.....	230,868	Aug. 10	328	96	18	308
Spur.....	A. Buermann.....	228,441	June 8	332	91	17	1290
Spur.....	A. D. Tytler.....	225,955	Mar. 30	1177	334	17	699
Square and bevel instrument.....	C. D. Walters.....	230,975	Aug. 10	443	127	18	326
Square and level. Combined.....	D. Masten.....	228,768	June 15	760	{ 208 209 }	17	1363
Square. Bevel.....	D. Bissell.....	228,027	May 25	1106	315	17	1188
Square. Double try.....	W. C. Hoffmeister.....	235,434	Dec. 14	465	132	18	1367
Square. Dress-maker's.....	J. A. Emery.....	226,605	Apr. 20	554	155	17	861
Square. Dress-maker's.....	C. H. Griffin.....	234,273	Nov. 9	551	150	18	1086
Square. Framing.....	M. B. Cornell.....	223,709	Jan. 20	610	163	17	126
Square, protractor, &c. Combined.....	S. D. Halley.....	223,727	Jan. 20	626	168	17	129
Square. Try.....	H. Johnson.....	226,075	Mar. 30	1313	370	17	720
Square. Try.....	L. S. Starrett.....	229,283	June 29	1351	371	17	1464
Squirt-can.....	T. Holland and J. B. Vallee.....	227,108	May 4	20	6	17	981
Stable.....	A. H. Crawford.....	227,150	May 4	77	21	17	990
Staging. Portable and adjustable.....	A. Dawes.....	228,518	June 8	429	117	17	1304
Staining and glazing vegetable fiber, &c.....	S. Metzger.....	231,077	Aug. 10	555	.....	18	344
Stairway-elevator.....	J. I. Tay.....	227,459	May 11	430	125	17	1059
Stake-pin.....	W. J. Carnes, Sr., and C. W. Penfield.....	227,675	May 18	679	194	17	1110
Stakes. Apparatus for setting out slope.....	W. E. Soare.....	223,253	Jan. 6	56	13	17	12
Stalk-cutter.....	B. W. Smith.....	231,111	Aug. 10	591	168	18	350
Stalk-rake. Revolving.....	H. Speer.....	225,952	Mar. 30	1173	333	17	699
Stalls. Unhitching device for stable.....	H. H. Bowker.....	232,107	Sept. 14	279	78	18	578
Stamp. Branding.....	H. H. Bryant.....	226,707	Apr. 20	669	186	17	879
Stamp. Branding.....	F. Christy.....	224,877	Feb. 24	1070	306	17	424
Stamp. Branding.....	A. S. Gear.....	223,902	Jan. 27	850	226	17	175
Stamp. Branding.....	A. S. Gear.....	223,903	Jan. 27	853	227	17	175
Stamp. Canceling.....	G. D. Spooner.....	229,282	June 29	1349	370	17	1463
Stamp-canceling device.....	R. W. Jemison and P. Watson.....	233,769	Oct. 26	1205	335	18	964
Stamp-canceling device.....	E. Osgood.....	236,074	Dec. 28	1256	347	18	1513
Stamp-feeder. Ore.....	E. Coleman.....	228,609	June 8	543	145	17	1320
Stamp. Hand.....	T. Berridge.....	228,243	June 1	99	30	17	1242
Stamp. Hand.....	G. K. Cooke.....	224,395	Feb. 10	487	140	17	303
Stamp. Hand.....	G. E. Emerson.....	224,666	Feb. 17	806	229	17	366
Stamp. Hand.....	B. B. Hill.....	232,349	Sept. 21	578	159	18	634
Stamp. Hand.....	T. Keith and A. Philp.....	232,727	Sept. 23	1018	280	18	714
Stamp. Hand.....	C. Lamb.....	230,879	Aug. 10	340	98	18	310
Stamp. Hand.....	J. Leighton.....	225,936	Mar. 30	1145	325	17	694
Stamp. Hand.....	J. Leighton.....	227,983	May 25	1058	301	17	1181
Stamp. Hand.....	W. H. Poole and D. Bowes.....	227,295	May 4	230	68	17	1016
Stamp. Hand.....	L. Potter.....	232,145	Sept. 14	315	89	18	584
Stamp. Hand.....	W. W. Sawyer.....	228,121	May 25	1208	344	17	1205
Stamp. Hand.....	L. K. Scottford.....	233,285	Oct. 12	598	165	18	845
Stamp. Hand.....	C. C. Wilson.....	227,603	May 11	595	170	17	1087
Stamp. Hand.....	C. C. Wilson.....	230,848	Aug. 3	292	83	18	295
Stamp-mill.....	J. C. Butterfield.....	230,611	Aug. 3	14	4	18	249
Stamp-mill. Ore.....	R. F. Bridewell.....	232,878	Oct. 5	102	27	18	755
Stamp-mill. Ore.....	J. M. Thompson.....	227,189	May 4	118	35	17	997
Stamp-mills. Ore-feeder for.....	I. B. Hammond.....	223,906	Jan. 27	857	227	17	176
Stamp. Ore.....	H. H. Taylor.....	223,823	Jan. 27	756	202	17	160
Stamp. Perforating.....	J. H. Barlow and I. Taylor.....	225,043	Mar. 2	76	21	17	469
Stamp. Perforating.....	J. J. Berger.....	226,962	Apr. 27	975	271	17	939
Stamp. Perforating.....	C. A. Raudall.....	227,299	May 4	236	69	17	1017
Stamp. Postage.....	J. Macdonough.....	228,365	June 1	230	65	17	1264
Stamp. Revenue.....	F. W. Brooks.....	223,432	Jan. 13	278	73	17	63
Stamp. Revenue.....	F. W. Brooks.....	223,433	Jan. 13	279	74	17	63
Stamp. Revenue.....	C. Stock.....	224,853	Feb. 24	1044	297	17	420
Stamp. Ticket.....	J. R. Robinson.....	233,807	Oct. 26	1251	{ 347 348 }	18	971
Stamping machine. Cloth.....	E. G. Gibson.....	223,223	Jan. 6	16	4	17	5
Stamping-machine die-box.....	L. H. Truax.....	232,912	Oct. 5	142	38	18	761
Stamping scale-beams, &c. Machine for.....	L. H. Truax.....	224,116	Feb. 3	171	48	17	231
Stanchion. Cattle.....	W. E. Huse.....	227,256	May 4	197	57	17	1010
Stanchion-fastener.....	S. Bryant.....	226,706	Apr. 20	668	186	17	879
Stand:							
See Cigar-lighting Painter's stand.							
stand. Photographic stand.							
Deflection-stand. Portfolio-stand.							
Folding stand. Railway-switch stand.							
Inkstand. Switch-stand.							
Jewel-stand. Table-stand.							
Lamp-stand. Telephone-stand.							
Mucilage-stand. Washstand.							
Music-stand.							
Stand-pipe drier for shafts.....	C. Wright.....	224,756	Feb. 17	897	256	17	382
Standard jack-post, cap-box, and fastening.....	W. H. Rowley.....	226,200	Apr. 6	64	16	17	757
Staples and securing them in paper. Mechanism for forming wire.....	C. H. Kellogg.....	225,933	Mar. 30	1140	324	17	694
Starch and glucose from corn. Economically obtaining.....	H. C. Humphrey.....	231,804	Aug. 31	1407	.....	18	500
Starch. Manufacture of.....	T. Gassaway.....	235,053	Nov. 30	1537	.....	18	1271
Starch-polish compound. Liquid.....	S. Lima.....	234,680	Nov. 23	1084	.....	18	1190
Starch-press.....	R. Johnson.....	227,537	May 11	518	140	17	1074
Starch. Press for extracting water from.....	N. Miller.....	235,001	Nov. 30	1475	397	18	1261
Starching-machine.....	E. B. Blackwell.....	231,528	Aug. 24	1071	301	18	440

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Starching-machine .....	J. P. Ellacott .....	224,119	Nov. 9	365	100	18	1054
Starching-machine .....	J. F. Langworthy and G. E. Norris .....	225,149	Mar. 2	192	54	17	489
Starching-machine .....	W. H. Robertson .....	227,583	May 11	508	163	17	1082
Starching-machine .....	L. J. Ryerson .....	230,344	July 20	984	279	18	176
Starching-machine .....	N. Taylor .....	233,124	Oct. 12	409	113	18	812
Station and cargo indicator .....	J. S. Browne, D. W. Ballentine, and G. M. Turner .....	230,692	Aug. 3	111	32	18	264
Station-indicator .....	J. L. Ferguson .....	231,297	Aug. 17	818	229	18	393
Station-indicator .....	J. B. Herbert and C. Layton .....	225,130	Mar. 2	175	49	17	486
Station-indicator .....	R. Matthai and C. A. Clinton .....	231,138	Aug. 10	622	175	18	355
Station-indicator .....	W. C. A. Thielepape .....	235,715	Dec. 21	807	227 228	18	1431
Station-indicator and advertiser. Automatic .....	W. F. Johnson .....	231,961	Sept. 7	112	28	18	541
Station-indicator. Railway .....	S. J. Morse .....	235,375	Dec. 14	392	108	18	1354
Station-indicator. Railway-car .....	C. Minton .....	229,050	June 22	1094	298	17	1418
Statuary and other figures in wax. Making patterns or copies of .....	O. Neubert .....	223,603	Jan. 13	480	129	17	96
Stave. Barrel .....	D. Congdon .....	229,099	June 22	1149	314	17	1427
Stave-crozing machine .....	D. Halladay .....	232,489	Sept. 21	750	208	18	663
Stave-making machine .....	E. and B. Holmes .....	224,187	Feb. 3	248	72	17	244
Stave vessels. Seasoning cylinders of one .....	I. Hogeland .....	230,481	July 27	1185	334	18	216
Staves. Machine for sawing tank .....	D. Halladay .....	232,490	Sept. 21	751	208	18	663
Stay and shoulder-brace. Combined .....	H. D. Wilson .....	232,162	Sept. 14	341	96	18	588
Steam and air brake coupling .....	H. B. Howard .....	233,513	Oct. 19	890	246	18	900
Steam and air engine .....	A. G. Waterhouse and B. B. Brewer .....	232,158	Sept. 14	337	94	18	587
Steam and heat conducting pipe .....	M. S. Foote .....	234,015	Nov. 2	238	65	18	1025
Steam and hot-air pipes. Covering for .....	A. B. Battelle .....	223,695	Jan. 20	597	160	17	124
Steam and hot-air pipes. Covering for .....	H. M. Fitzhugh .....	231,300	Aug. 17	820	230	18	393
Steam and hot-water boiler .....	W. R. Parks .....	229,173	June 22	1225	336	17	1438
Steam and hydraulic elevator. Combined .....	J. R. McPherson .....	225,851	Mar. 23	1026	296	17	662
Steam and other vessels. Hollow air-tight brace for .....	J. Sherry .....	230,721	Aug. 3	145	43	18	270
Steam. Apparatus for utilizing exhaust .....	D. Grimm .....	226,850	Apr. 27	842	234	17	919
Steam-boiler .....	G. H. Babcock, S. Wilcox, and N. W. Pratt .....	229,352	June 29	1446	398	17	1475
Steam-boiler .....	S. D., and J. Barrow .....	231,521	Aug. 24	1062	299	18	439
Steam-boiler .....	G. F. Brott .....	235,124	Dec. 7	73	22	18	1293
Steam-boiler .....	S. Brown .....	228,978	June 22	1019	277	17	1403
Steam-boiler .....	J. Cowhig .....	226,443	Apr. 13	346	99	17	817
Steam-boiler .....	J. A. Cunningham .....	229,966	July 13	530	147	18	96
Steam-boiler .....	J. H. Elward .....	232,249	Sept. 14	448	123 124	18	606
Steam-boiler .....	J. H. Elward .....	236,011	Dec. 28	1185	328	18	1501
Steam-boiler .....	J. N. Farnham .....	227,621	May 18	618	177	17	1102
Steam-boiler .....	W. M. Fisher .....	228,521	June 8	432	118	17	1304
Steam-boiler .....	W. M. Fisher .....	232,481	Sept. 21	738	205	18	661
Steam-boiler .....	W. S. Fiske .....	224,890	Feb. 24	1086	311	17	427
Steam-boiler .....	G. W. Hall .....	232,024	Sept. 7	180	48	18	553
Steam-boiler .....	J. Hall and C. M. Lane .....	232,121	Sept. 14	293	83	18	580
Steam-boiler .....	J. E. Jerrold .....	227,536	May 11	517	149	17	1074
Steam-boiler .....	D. W. Kellogg and W. A. Kirby .....	235,684	Dec. 21	767	218	18	1424
Steam-boiler .....	G. Kelly .....	234,986	Nov. 30	1458	392	18	1258
Steam-boiler .....	I. R. Kern .....	233,102	Oct. 12	384	105	18	807
Steam-boiler .....	S. L. Langdon .....	224,447	Feb. 10	547	157	17	313
Steam-boiler .....	L. McKay .....	225,941	Mar. 30	1150	327	17	695
Steam-boiler .....	W. R. Michener .....	224,836	Feb. 24	1022	291	17	417
Steam-boiler .....	J. D. Ogle .....	225,159	Mar. 2	202	57	17	491
Steam-boiler .....	G. H. Pond .....	226,189	Apr. 6	49	12	17	754
Steam-boiler .....	L. Rivet .....	225,722	Mar. 23	884	258	17	639
Steam-boiler .....	W. S. Salisbury .....	226,202	Apr. 6	66	16	17	757
Steam-boiler .....	G. J. Scott .....	228,783	June 15	781	213	17	1366
Steam-boiler .....	F. Trump .....	228,143	May 25	1233	350	17	1209
Steam-boiler .....	J. B. Ward .....	231,874	Aug. 31	1492	418	18	513
Steam-boiler .....	J. E. Culver .....	233,735	Oct. 26	1169	325	18	956
Steam-boiler and furnace .....	E. H. McNeil .....	225,625	Mar. 16	760	224	17	609
Steam-boiler and furnace .....	W. Moore .....	227,813	May 18	836	237	17	1134
Steam-boiler covering .....	M. P. Jones .....	227,260	May 4	200	57	17	1010
Steam-boiler covering .....	G. F. Lynch .....	229,620	July 6	126	34	18	27
Steam-boiler covering .....	T. Merriam .....	230,033	July 13	606	168	18	108
Steam-boiler feeding apparatus .....	E. Fromentin .....	225,005	Mar. 2	25	7	17	461
Steam-boiler indicator .....	F. Ladry .....	232,981	Oct. 5	223	60	18	775
Steam-boiler indicator .....	T. B. Rider .....	234,146	Nov. 9	392	107	18	1059
Steam-boiler. Portable .....	W. R. Michener .....	225,069	Mar. 2	111	31	17	475
Steam-boiler. Portable .....	J. R. Mitchell .....	231,443	Aug. 24	976	275	18	426
Steam-boiler purifying apparatus .....	A. Dervaux .....	230,248	July 20	879	249	18	159
Steam-boiler safety attachment .....	C. McWilliam .....	229,160	June 22	1214	332	17	1436
Steam-boiler. Sectional .....	G. H. Pond .....	223,451	Jan. 13	297	79	17	66
Steam-boiler surface-feeder .....	C. N. Petesch .....	223,380	Jan. 6	194	51	17	36
Steam-boiler. Tubular .....	E. Solvay .....	231,859	Aug. 31	1472	413	18	510
Steam-boiler. Upright .....	D. Hale .....	227,105	May 4	16	5	17	981
Steam-boiler. Upright .....	P. Quinn .....	226,880	Apr. 27	881	245	17	925
Steam-boilers. Anti-incrustator for .....	W. Morehouse .....	229,051	June 22	1096	298	17	1419
Steam-boilers. Apparatus for supplying fuel to .....	C. Smith .....	224,237	Feb. 3	298	86	17	253
Steam-boilers. Electrical water-indicator for .....	J. Boyd and R. O. Crowley .....	224,068	Feb. 3	115	33	17	222
Steam-boilers. Preventing explosions of .....	D. T. Lawson .....	227,024	Apr. 27	1051	292	17	952
Steam-boilers. Supplying water to .....	H. and O. Amundsen .....	227,145	May 4	72	20	17	989
Steam-brake .....	W. L. Card .....	224,145	Feb. 3	194	56	17	236
Steam-brake .....	C. Lewis .....	228,821	June 15	829	226 227	17	1372
Steam-conducting pipe .....	J. Brosius .....	236,834	Apr. 27	820	229	17	915
Steam-engine .....	R. C. Barrie, Jr. .....	226,591	Apr. 20	538	151	17	858
Steam-engine .....	E. Cope and J. R. Maxwell .....	226,600	Apr. 20	548	153	17	860
Steam-engine .....	A. and S. J. Covey .....	227,739	May 18	762	215	17	1122
Steam-engine .....	J. Curtis .....	230,245	July 20	875	248 249	18	158

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'ts.	Vol.	Page.
Steam-engine .....	J. D. Davies .....	225,351	Mar. 9	443	{ 128 129 }	17	543
Steam-engine .....	W. S. Fiske .....	231,551	Aug. 24	1097	308	18	444
Steam-engine .....	W. N. Fort and J. A. Scott .....	227,753	May 18	775	219	17	1125
Steam-engine .....	H. C. Hunt .....	233,622	Oct. 26	1040	{ 259 290 }	18	935
Steam-engine .....	W. J. Innis .....	230,943	Aug. 10	408	118	18	321
Steam-engine .....	J. C. Miller .....	228,374	June 1	245	69	17	1266
Steam-engine .....	T. T. Prosser .....	224,950	Feb. 24	1144	327	17	437
Steam-engine .....	S. N. Silver .....	225,651	Mar. 16	786	230	17	613
Steam-engine .....	L. Thomas .....	225,183	Mar. 2	225	64	17	495
Steam-engine .....	J. H. Vaile .....	235,318	Dec. 7	299	84, 85	18	1331
Steam-engine-cylinder lubricator .....	C. E. Johnson .....	229,710	July 6	230	63	18	42
Steam-engine. Direct-acting .....	J. W. Cole .....	233,208	Oct. 12	505	{ 139 140 }	18	829
Steam-engine for traction-vehicles .....	A. H. Wagner .....	234,824	Nov. 23	1254	{ 337 338 }	18	1217
Steam-engine. Hydro- .....	C. F. Pike .....	228,555	June 8	474	{ 127 128 }	17	1311
Steam-engine lubricator .....	A. L. Harrison .....	225,124	Mar. 2	167	48	17	485
Steam-engine lubricator .....	J. W. Thompson .....	223,412	Jan. 6	230	61	17	42
Steam-engine lubricators. Equalizing-trap for .....	S. H. Edgerly .....	224,159	Feb. 3	210	61	17	238
Steam-engine pitman-connection .....	F. C. Rowland .....	227,059	Apr. 27	1099	303	17	959
Steam-engine. Portable .....	T. McGregor .....	226,055	Dec. 28	1236	341	18	1509
Steam-engine. Portable .....	H. M. Sciple .....	224,481	Feb. 10	581	167	17	318
Steam-engine recorder .....	G. H. Crosby .....	228,179	June 1	21	7	17	1230
Steam-engine recorder .....	J. W. Kenyon .....	232,978	Oct. 5	220	59	18	774
Steam-engine reversing-gear .....	W. Baxter .....	223,632	Jan. 20	527	142	17	113
Steam-engines. Framing of beam .....	G. H. Corliss .....	235,745	Dec. 21	843	{ 235 236 }	18	1436
Steam-engines. Marine and other .....	L. Perkins .....	227,828	May 18	852	{ 241 242 }	17	1137
Steam-engines. Reversing and cut-off mechanism for .....	W. L. Miller .....	231,834	Aug. 31	1438	404	18	505
Steam-generator .....	A. J. Collinge .....	232,459	Sept. 21	714	198	18	656
Steam-generator .....	D. Davison .....	232,465	Sept. 21	720	200	18	657
Steam-generator .....	N. Eaton .....	228,250	June 1	106	32	17	1243
Steam-generator .....	J. Everding .....	229,984	July 13	549	153	18	99
Steam-generator .....	T. P. Franko .....	232,255	Sept. 14	457	126	18	608
Steam-generator .....	F. A. Gardner .....	230,124	July 20	724	203	18	136
Steam-generator .....	J. B. Haupt .....	230,938	Aug. 10	402	116	18	320
Steam-generator .....	A. P. Holcomb .....	231,320	Aug. 17	840	236	18	397
Steam-generator .....	C. Holland .....	226,072	Mar. 30	1309	369	17	720
Steam-generator .....	F. E. Hosmer .....	234,872	Nov. 30	1316	355	18	1234
Steam-generator .....	T. C. Joy .....	233,624	Oct. 26	1046	291	18	936
Steam-generator .....	J. W. King and H. N. Drake .....	225,617	Mar. 16	751	221	17	607
Steam-generator .....	T. I. Leiper .....	227,437	May 11	407	118	17	1055
Steam-generator .....	M. N. Lovell .....	225,480	Mar. 16	596	173	17	579
Steam-generator .....	J. C. Miller .....	229,165	June 22	1218	333	17	1437
Steam-generator .....	J. M. Osborne .....	226,343	Apr. 6	220	64	17	786
Steam-generator .....	F. M. Stevens .....	232,773	Sept. 28	1072	294	18	724
Steam-generator .....	N. Will .....	233,310	Oct. 12	632	{ 174 175 }	18	851
Steam-generator .....	A. D. Woodman .....	232,220	Sept. 14	411	114	18	600
Steam-generator and furnace .....	J. Gühring .....	234,123	Nov. 9	369	101	18	1055
Steam-generator and furnace .....	M. M. Monsanto .....	235,275	Dec. 7	256	71, 72	18	1323
Steam generator and superheater .....	J. B. Ward .....	223,825	Jan. 27	759	203	17	161
Steam-generator for cooking and laundry purposes .....	J. E. Smith .....	235,969	Dec. 28	1138	315	18	1494
Steam-generator. Sectional .....	H. Heine .....	233,094	Oct. 12	371	{ 102 103 }	18	806
Steam-generator. Sectional .....	D. Renshaw .....	230,818	Aug. 3	252	72	18	288
Steam-generator. Sectional .....	D. Renshaw .....	231,194	Aug. 17	704	198	18	374
Steam-generators. Circulating device for .....	D. Abell .....	233,905	Nov. 2	88	23	18	1001
Steam-heater .....	S. F. Gold .....	225,472	Mar. 16	588	171	17	578
Steam-heater .....	J. H. Osborne .....	230,193	July 20	804	227	18	148
Steam-heater .....	J. B. Pierce .....	228,475	June 8	369	101	17	1295
Steam-heater .....	W. C. Wren .....	224,569	Feb. 17	694	198	17	347
Steam-heaters. Air-valve for .....	F. A. Jones and A. Holt .....	227,361	May 11	326	96	17	1042
Steam machinery lubricator .....	G. H. Flower .....	229,242	June 29	1300	359	17	1457
Steam-muffler .....	J. D. Campbell and J. S. Drake .....	224,644	Feb. 17	783	221	17	362
Steam-muffler .....	G. Richards .....	227,302	May 4	242	70	17	1017
Steam or fluid brake .....	H. I. Bearup .....	231,143	Aug. 17	635	180	18	363
Steam-pipe covering .....	E. H. Ashcroft .....	235,846	Dec. 28	988	274	18	1469
Steam-pipe muffler .....	F. A. Perry .....	230,893	Aug. 10	358	103	18	312
Steam-pipes, &c. Covering for .....	J. Merriam .....	234,417	Nov. 16	739	200	18	1127
Steam-pipes. Non-conducting jacket for .....	J. Riley .....	230,059	July 13	633	177	18	112
Steam-railway brake .....	O. B. Kendall .....	224,293	Feb. 10	371	106	17	285
Steam-railway brake .....	J. Woods .....	227,400	May 11	365	108	17	1049
Steam-supply-pipe coupling .....	A. Harvey .....	233,412	Oct. 19	785	216	18	882
Steam-trap .....	H. O. Ames .....	226,951	Apr. 27	963	267	17	938
Steam-trap .....	J. H. Blessing .....	234,386	Nov. 16	703	189	18	1120
Steam-trap .....	J. Burns .....	230,233	July 20	849	240	18	155
Steam-trap .....	T. B. and S. S. Davis .....	224,661	Feb. 17	800	227	17	365
Steam-trap .....	B. W. Felthousen .....	226,228	Apr. 6	91	25	17	762
Steam-trap .....	R. M. McMann and H. A. Barnard .....	230,030	July 13	603	{ 167 168 }	18	107
Steam-trap .....	H. Mitchell .....	224,600	Feb. 17	735	208	17	354
Steam-trap .....	E. S. Newton .....	228,833	June 15	844	230	17	1374
Steam-trap .....	R. Newton .....	233,004	Oct. 5	247	68	18	779
Steam-trap .....	H. Wallace .....	234,095	Nov. 2	323	89	18	1040
Steam-washer .....	D. and W. E. Richards .....	226,552	Apr. 13	474	134	17	836
Steamboat-staging .....	J. B. Mooney .....	233,159	Oct. 12	450	124	18	819
Steamboat-staging .....	J. B. Mooney .....	233,160	Oct. 12	451	124	18	819
Steamboats. Apparatus for trimming side-wheel .....	W. J. Brassington .....	232,931	Oct. 5	164	43	18	765

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Steamer and drier. Grain.....	F. A. Hoffmann.....	234,281	Nov. 9	559	152	18	1088
Steamer. Culinary.....	A. Burbank.....	231,266	Aug. 17	786	220	18	387
Steamer. Culinary.....	H. T. King.....	227,903	May 25	961	276	17	1166
Steamer. Feed.....	W. Collings.....	233,074	Oct. 12	343	95	18	801
Steamer. Feed.....	M. Garmire.....	227,973	May 25	1048	298	17	1179
Steamer. Feed.....	O. Van Tassell.....	225,892	Mar. 23	1074	307	17	670
Steaming apparatus.....	B. H. Scott.....	227,451	May 11	421	122	17	1057
Steaming oysters. Apparatus for.....	R. Wells.....	235,189	Dec. 7	151	43	18	1307
Steel. Apparatus for converting scrap into bar.....	S. Uren.....	231,693	Aug. 31	1268	356	18	478
Steel blooming and slabbing mill.....	J. Hemphill.....	232,713	Sept. 28	1003	276	18	715
Steel. Tempering.....	J. C. Jenkins.....	223,738	Jan. 20	637	.....	17	131
Steering apparatus.....	P. P. Seoane.....	223,395	Jan. 6	209	55, 56	17	38
Steering apparatus for vessels.....	A. Griffin.....	232,487	Sept. 21	746	207	18	66
Steering apparatus for vessels. Power.....	A. J. Stevens.....	230,079	July 13	653	182	18	11
Steering apparatus for vessels. Power.....	A. J. Stevens.....	231,505	Aug. 24	1043	293	18	43
Steering apparatus for vessels. Power.....	S. F. Tappan.....	224,364	Feb. 10	453	{ 130 131 }	17	297
Steering apparatus. Steam or hydraulic.....	J. Gates.....	223,804	Jan. 27	730	497	17	77
Steering apparatus. Vessel.....	J. Gorman.....	234,180	Nov. 9	435	118	18	17
Steering-gear for traction-vehicles.....	H. N. Land and H. Campbell.....	229,715	July 6	235	65	18	13
Steering-gear of vessels. Mechanism for controlling the.....	A. F. A. Petersen.....	233,876	Nov. 2	57	15	18	136
Steering-lever.....	J. Gates.....	229,880	July 13	438	120	18	81
Steering mechanism. Steam.....	C. R. Simey.....	231,626	Aug. 24	1179	330	18	457
Steering row-boats. Apparatus for.....	H. N. Staats.....	235,823	Dec. 21	931	260	18	1452
Stencil.....	D. W. Ream.....	234,492	Nov. 16	827	221	18	1141
Stereoscope.....	J. Paglinghi and J. Ardito.....	232,649	Sept. 28	929	256	18	700
Stereotype.....	E. P. Brown.....	229,861	July 13	417	115	18	78
Stereotype and other plates. Machine for shaving and cutting.....	W. A. Wright.....	224,755	Feb. 17	896	256	17	382
Stereotype-block.....	G. E. Jones.....	230,021	July 13	594	165	18	106
Stereotype-matrices. Drying.....	W. J. Johnson.....	234,480	Nov. 16	814	218	18	1139
Stereotype-plate holder.....	F. Wesel.....	229,291	June 29	1363	374	17	1465
Stereotype-plates. Machine for trimming.....	W. J. Johnson.....	231,427	Aug. 24	960	271	18	423
Stereotypes. Block for interchangeable.....	E. P. Brown.....	229,862	July 13	418	116	18	78
Stick-horse.....	J. A. Crandall.....	230,749	Aug. 3	175	51	18	275
Still. Alcohol.....	C. J. T. Burcey.....	229,585	July 6	92	25	18	22
Still. Alcohol.....	A. Dieryckx.....	228,449	June 8	341	94	17	1291
Still. Alcohol.....	O. L. Perin, D. Horan, and D. McGoen.....	230,333	July 20	972	276	18	174
Still for refining petroleum.....	J. D. Meigher.....	224,301	Feb. 10	382	108	17	286
Still. Oil.....	G. Crane.....	231,280	Aug. 17	800	224	18	390
Stirrer and thermometer. Combined.....	B. F. Adams.....	233,906	Nov. 2	89	23	18	1001
Stirrup.....	H. D. Adel.....	223,690	Jan. 20	590	158	17	123
Stirrup.....	W. W. Brower.....	223,577	Jan. 13	453	122	17	92
Stirrup.....	H. E. Waehlte.....	233,647	Oct. 26	1075	299	18	940
Stirrup-strap attachment.....	J. Bull.....	227,727	May 18	748	210	17	1120
Stocking.....	H. J. Griswold.....	229,401	June 29	1499	413	17	1483
Stocking and method of manufacturing the same.....	W. Pope.....	226,878	Apr. 27	880	245	17	925
Stocking and the method of making.....	R. W. Scott.....	234,074	Nov. 2	300	83	18	1036
Stocking and the method of making.....	R. W. Scott.....	234,075	Nov. 2	301	83	18	1036
Stocking-supporter.....	J. A. House.....	229,889	July 13	446	123	18	83
Stocking-supporter.....	C. C. Shelby.....	226,681	Apr. 20	642	179	17	874
Stocking-suspender. Child's.....	H. F. Bowman.....	232,671	Sept. 28	959	263	18	705
Stone and marble. Artificial.....	W. H. Young.....	233,960	Nov. 2	164	.....	18	1013
Stone. Artificial.....	J. P. Davis.....	224,660	Feb. 17	800	.....	17	365
Stone. Artificial.....	H. A. H. Mason.....	232,287	Sept. 14	493	.....	18	614
Stone. Artificial.....	G. W. Mason.....	234,833	Nov. 23	1265	.....	18	1219
Stone. Compound for artificial.....	A. K. Lee.....	225,991	Mar. 30	1215	.....	17	706
Stone-crusher.....	C. G. Buchanan.....	231,530	Aug. 24	1073	301	18	441
Stone-crusher.....	S. L. Marsden.....	230,304	July 20	937	266	18	168
Stone-crusher.....	T. A. Blake.....	223,697	Jan. 20	599	160	17	124
Stone-crusher.....	C. M. Brown.....	225,104	Mar. 2	145	42	17	481
Stone, &c., crushing apparatus.....	G. Dalton.....	223,487	Jan. 13	347	93	17	74
Stone-cutting machine.....	S. B. Frank.....	227,758	May 18	780	220	17	1125
Stone dressing and paneling machine.....	N. Jenkins.....	223,230	Jan. 6	25	6	17	7
Stone-dressing machine.....	M. Greer.....	233,090	Oct. 12	368	101	18	805
Stone grinding and polishing machine.....	M. Hirschbeck.....	231,318	Aug. 17	837	{ 235 236 }	18	336
Stone or marble. Manufacture of artificial.....	W. H. Hoopes.....	223,735	Jan. 20	635	.....	17	130
Stone-sawing machine.....	H. Young.....	224,760	Feb. 17	901	258	17	383
Stone-saws. Division-block and holder for.....	E. D. Dougherty.....	228,045	May 25	1122	319	17	1191
Stone-turning lathe.....	L. B. Clogston.....	224,150	Feb. 3	201	58, 59	17	237
Stone-working, &c. Boring-tool for.....	W. Hasenzahl.....	224,530	Feb. 17	646	185	17	340
Stool.....	H. A. Seymour.....	229,761	July 6	291	81	18	51
Stool. Adjustable.....	W. A. and R. T. Smith.....	226,252	Apr. 6	117	33	17	767
Stool and cane. Combined.....	W. C. Nelson and J. N. Young.....	228,670	June 8	607	163	17	1330
Stool. Camp.....	A. S. Drisko.....	223,221	Jan. 6	15	4	17	5
Stool. Milking.....	G. W. Williams, Sr.....	230,910	Aug. 10	375	108	18	315
Stool or chair.....	J. M. J. Wernert.....	232,790	Sept. 28	1102	302	18	729
Stool. Piano.....	A. D. Hoffman.....	235,360	Dec. 14	373	103	18	1351
Stool. Piano.....	M. H. Wilson.....	224,857	Feb. 24	1047	298	17	421
Stopper.....							
See Bottle-stopper. Glass stopper.							
Flue-stopper.....							
Stopper.....	W. W. Stewart.....	234,342	Nov. 9	625	170	18	1099
Storage-tank.....	E. E. Hendrick.....	234,185	Nov. 9	442	119	18	1068
Storage-tank for petroleum.....	G. W. King.....	234,291	Nov. 9	570	155	18	1090
Store-counter.....	H. H. Henderson.....	224,429	Feb. 10	526	152	17	309
Store-service apparatus.....	J. C. White.....	229,783	July 6	314	88	18	54
Stove.....	E. W. Anthony.....	230,851	Aug. 10	309	89, 90	18	305
Stove.....	A. C. Barstow.....	228,166	June 1	6	2, 3	17	1228
Stove.....	C. H. Blanchard.....	225,208	Mar. 9	268	77	17	516

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				Spec.	Dr'g	Vol.	Page.
Stove .....	D. L. Ervin .....	225,812	Mar. 23	994	285	17	656
Stove .....	C. A. Hamlin .....	231,163	Aug. 17	661	186 187	18	368
Stove .....	J. H. Irwin .....	226,520	Apr. 13	441	123 124	17	831
Stove .....	J. T. Lambert .....	231,819	Aug. 31	1422	400	18	502
Stove .....	A. J. Redway .....	223,861	Jan. 27	800	214 215	17	167
Stove .....	J. G. Smith .....	233,567	Oct. 19	958	264 265	18	912
Stove .....	H. Turner .....	227,932	May 25	992	284	17	1171
Stove. Air-heating .....	J. Batchelder, Jr. ....	231,390	Aug. 24	922	260	18	417
Stove. Alcohol .....	E. G. Starck .....	230,904	Aug. 10	370	106	18	314
Stove and furnace grate .....	E. Bussey .....	223,988	Feb. 3	18	6	17	205
Stove and furnace grate .....	I. Hayes .....	232,494	Sept. 21	755	209	18	663
Stove and grate. Heating .....	R. Hall .....	232,263	Sept. 14	466	129	18	610
Stove and range. Cooking .....	E. D. Norcross .....	230,889	Aug. 10	352	102	18	311
Stove attachment .....	G. E. Hopkin .....	229,824	July 13	375	104	18	72
Stove attachment. Magazine .....	R. Hatchman .....	225,597	Mar. 16	725	214	17	603
Stove. Base-burning .....	E. C. Smith .....	234,340	Nov. 9	622	170	18	1099
Stove-board .....	A. I. Griggs .....	230,002	July 13	575	160	18	103
Stove-board .....	H. Rendtorff .....	233,165	Oct. 12	456	125	18	820
Stove-board .....	H. Rendtorff .....	233,947	Nov. 2	138	37	18	1010
Stove-boiler heater .....	J. L. Wilson .....	232,163	Sept. 14	342	96	18	588
Stove-bottom .....	T. C. Kennedy .....	232,040	Sept. 7	198	54	18	557
Stove burner. Gas .....	W. Bliesner .....	225,740	Mar. 23	901	262	17	642
Stove. Camp .....	C. W. Hobbs .....	227,107	May 4	19	6	17	981
Stove-casing .....	W. B. McBeo .....	227,556	May 11	537	155	17	1078
Stove. Coal .....	C. G. Moulton .....	233,687	Oct. 26	1116	310 311	18	948
Stove. Coal-oil .....	J. M. Adams .....	230,850	Aug. 10	308	89	18	305
Stove. Coal-oil cooking .....	W. H. Wiester .....	223,829	Jan. 27	764	204	17	161
Stove cone attachment .....	J. H. Egan .....	229,684	July 6	198	55	18	37
Stove. Cooking .....	J. F. Applegate .....	232,226	Sept. 14	418	116	18	601
Stove. Cooking .....	I. De Haven .....	234,857	Nov. 30	1300	350	18	1231
Stove. Cooking .....	C. H. Dunton .....	235,939	Dec. 28	1100	304	18	1487
Stove. Cooking .....	G. F. Filley .....	235,346	Dec. 14	358	98	18	1348
Stove. Cooking .....	G. F. Filley .....	235,347	Dec. 14	359	99	18	1349
Stove. Cooking .....	G. F. Filley .....	235,348	Dec. 14	359	99	18	1349
Stove. Cooking .....	L. Kahn .....	233,863	Nov. 2	44	12	18	994
Stove. Cooking .....	R. J. and W. A. King .....	231,174	Aug. 17	678	191	18	370
Stove. Cooking .....	W. Murphy .....	224,464	Feb. 10	565	162 163	17	315
Stove. Cooking .....	J. A. Musselman .....	224,463	Feb. 10	563	162	17	315
Stove. Cooking .....	G. Wellhouse .....	223,420	Jan. 6	240	63	17	43
Stove-cover lifter .....	L. P. Harder .....	228,461	June 8	356	97	17	1293
Stove-covers. Tool for forming lugs in .....	J. S. Gow .....	230,475	July 27	1180	332	18	215
Stove-cylinders. Ornamenting .....	C. G. Moulton and J. G. Marquardt .....	232,053	Sept. 7	212	57	18	559
Stove fire-plate .....	J. H. Goodfellow .....	235,081	Dec. 7	23	7	18	1285
Stove-foot fastener .....	D. Thomas .....	224,312	Feb. 10	395	111	17	288
Stove fount. Gasoline .....	G. W. Billings .....	223,310	Jan. 6	124	31	17	23
Stove fume-pipe. Cooking .....	C. Illing .....	228,075	May 25	1161	331	17	1197
Stove. Gas .....	J. Adams .....	233,389	Oct. 19	751	205 206	18	877
Stove. Gas .....	A. L. Rossetti .....	233,283	Oct. 12	595	164	18	844
Stove. Gas .....	W. A. Turner .....	224,056	Feb. 3	100	29	17	220
Stove. Gasoline .....	W. C. North .....	234,491	Nov. 16	826	220	18	1141
Stove-grate .....	E. W. Anthony .....	229,852	July 13	408	112 113	18	77
Stove-grate .....	J. W. Kline .....	225,706	Mar. 23	866	253	17	636
Stove-grate .....	R. Z. Liddle and R. Morris .....	233,939	Nov. 2	128	35	18	1008
Stove-grate .....	W. McClave .....	225,623	Mar. 16	757	223	17	608
Stove-grate .....	J. Moore, Jr. ....	228,266	June 1	133	37	17	1247
Stove-grate .....	S. H. Ransom and G. W. Graves .....	227,924	May 25	982	282	17	1169
Stove-grate .....	W. Wicke .....	226,895	Apr. 27	898	250	17	928
Stove-grate and bearings .....	J. Jewett .....	236,036	Dec. 28	1213	334	18	1505
Stove-grate. Bottom .....	A. S. Newby .....	235,891	Dec. 28	1037	286	18	1477
Stove-grate. Heating .....	C. H. Gibbs .....	227,242	May 4	182	53	17	1007
Stove-grates. Cone for .....	H. Tuttle .....	233,830	Dec. 21	941	263	18	1454
Stove. Hay .....	J. A. Stocum and R. M. Merrill .....	228,287	June 1	156	43	17	1252
Stove hay-burner attachment .....	L. T. Harper .....	224,683	Feb. 17	827	234	17	310
Stove hay-burning attachment .....	D. F. Laughlin .....	230,786	Aug. 3	215	62	18	281
Stove hearth .....	J. T. Pect .....	235,803	Dec. 21	910	253	18	1448
Stove. Heating .....	T. P. Berryhill and W. D. Vaughan .....	229,082	June 22	1132	308	17	1424
Stove. Heating .....	B. F. Clement .....	232,457	Sept. 21	713	197	18	656
Stove. Heating .....	O. W. Noble .....	225,484	Mar. 16	600	174	17	580
Stove. Heating .....	J. P. Oeth .....	225,234	Mar. 9	299	86	17	520
Stove. Heating .....	J. Ryn .....	226,201	Apr. 6	65	16	17	757
Stove. Heating .....	J. H. Shimmons .....	229,193	June 22	1244	342	17	1440
Stove. Hot-blast .....	J. M. Hartman .....	224,089	Feb. 3	142	40	17	227
Stove. Kerosene .....	M. C. Armour .....	223,977	Feb. 3	4	2	17	203
Stove. Lamp .....	J. H. Irwin .....	228,762	June 15	748	206	17	1361
Stove. Lamp .....	J. H. Irwin .....	230,636	Aug. 3	47	14	18	254
Stove. Lamp .....	G. W. Walterhouse, Sr. ....	234,153	Nov. 9	399	109	18	1060
Stove-leg .....	E. Becker .....	230,689	Aug. 3	109	31	18	264
Stove-leg .....	R. Peterson and J. Beesley .....	224,947	Feb. 24	1142	326	17	437
Stove-leg. Adjustable .....	J. Matz .....	226,530	Apr. 13	454	128	17	833
Stove-leg fastener .....	T. H. Roberts .....	226,198	Apr. 6	61	15	17	757
Stove-leg fastening .....	C. Temme .....	233,382	Oct. 19	743	203	18	876
Stove-lid .....	J. J. Lowden .....	225,151	Mar. 2	195	55	17	490
Stove-lid bowls, &c. Molding .....	J. O'Keefe .....	226,672	Apr. 20	632	176	17	873
Stove lifter and carrier .....	L. K. Smith .....	224,617	Feb. 17	755	214	17	357
Stove. Magazine .....	C. Seaver .....	228,401	June 1	269	75	17	1270
Stove. Oil .....	J. M. Adams .....	231,884	Sept. 7	2	1	18	523



*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & E.	Vol.	Page.
Stove. Oil.....	D. W. Goodell.....	235,228	Dec. 7	204	55	18	1314
Stove. Oil.....	A. C. Macallister.....	233,865	Nov. 2	47	13	18	995
Stove. Oil.....	D. Shields.....	233,398	Jan. 6	212	56	17	39
Stove. Oil.....	J. M. Whitmore.....	226,010	Mar. 30	1239	350	17	709
Stove. Oil.....	T. J. Whitney.....	232,160	Sept. 14	339	95	18	588
Stove or oven. Gas.....	A. W. Merton.....	235,640	Dec. 21	720	205	18	1416
Stove oven. Kerosene.....	V. Fountain.....	234,913	Nov. 30	1370	368	18	1243
Stove-oven lining.....	D. A. Dickinson.....	232,950	Oct. 5	186	50	18	769
Stove-oven shelf.....	G. H. Holliday.....	231,911	Sept. 7	39	9	18	530
Stove. Parlor cooking.....	T. B. Baldwin.....	225,783	Mar. 23	958	276	17	650
Stove-pipe.....	H. Cook.....	232,005	Sept. 7	159	41	18	550
Stove-pipe.....	W. C. Freeman.....	228,883	June 15	898	245	17	1382
Stove-pipe blank.....	G. Hipwell.....	229,532	July 6	30	8	18	13
Stove-pipe collar.....	G. Blair.....	235,729	Dec. 21	825	231	18	1434
Stove-pipe collar.....	N. D. Mercy.....	230,040	July 13	613	170	18	109
Stove-pipe-elbow-flanging machine.....	J. P. Icor.....	234,191	Nov. 9	448	121	18	1069
Stove-pipe elbows. Machine for making.....	A. J. Lindemann.....	232,045	Sept. 7	202	55	18	558
Stove-pipe-joint fastener.....	H. M. Wells.....	229,506	June 29	1621	447	17	1500
Stove-pipe shelf.....	S. Ayres.....	234,452	Nov. 16	780	209	18	1133
Stove-pipe shelf.....	H. Clayton.....	229,957	July 13	521	144	18	94
Stove-pipe shelf.....	M. B. Coburn.....	227,733	May 18	752	212	17	1121
Stove-pipe shelf.....	B. Kilbourn.....	231,915	Sept. 7	43	10	18	531
Stove-pipe thimble.....	G. W. Cook.....	230,923	Aug. 10	387	111	18	317
Stove-pipe thimble.....	G. E. Palmer.....	233,113	Oct. 12	396	109	18	809
Stove-platform.....	W. Westlake.....	232,427	Sept. 21	675	186	18	650
Stove. Portable.....	B. E. Agard.....	225,780	Mar. 23	955	275	17	650
Stove. Reservoir cook.....	R. Galbraith.....	228,454	June 8	346	95	17	1292
Stove. School-house.....	J. Grossius.....	227,766	May 18	788	223	17	1127
Stove-shelf.....	C. H. Spray and E. M. Bush.....	226,125	Mar. 30	1370	386	17	729
Stove-shelf.....	W. E. Walker.....	229,572	July 6	78	21	18	21
Stove. Steam.....	J. Ashcroft.....	224,625	Feb. 17	762	216	17	358
Stove. Steam.....	J. L. Harley.....	226,313	Apr. 6	189	55	17	780
Stove. Steam.....	S. Silsbee.....	225,240	Mar. 9	306	87	17	522
Stove top. Vapor.....	W. W. Sly.....	229,057	June 22	1102	300	17	1420
Stove-urn.....	G. W. Herrick, C. W. Wipflor, and T. H. Roberts.....	230,186	July 20	797	225	18	147
Stove. Vapor.....	Z. Davis.....	235,624	Dec. 21	705	200	18	1413
Stoves. Air-heater for self-feeding.....	W. J. McSherry.....	232,289	Sept. 14	495	138	18	614
Stoves. Domestic oven for lamp.....	J. H. Irwin.....	230,635	Aug. 3	44	13	18	254
Stoves. Hot-water attachment for magazine.....	C. Johnson.....	225,987	Mar. 30	1211	343	17	705
Stoves. Plated ornament for.....	J. Naylor, Jr.....	228,921	June 15	938	255	17	1387
Stoves. Portable extension-top for.....	J. H. Hutchinsen.....	234,575	Nov. 16	930	249	18	1158
Stoves. Reservoir for vapor.....	J. A. Marsh.....	234,880	Nov. 30	1328	357	18	1236
Stoves. Smoke and gas consumer for.....	C. T. Barnes.....	231,142	Aug. 17	633	180	18	363
Stoves. Vapor-burner for.....	D. E. Bangs.....	229,355	June 29	1450	399	17	1476
Stoves. Vapor-burner for.....	Z. Davis.....	235,415	Dec. 14	436	123	18	1362
Stoves. Water-back for.....	J. T. Abbe.....	232,164	Sept. 14	342	96	18	588
Strainer for tea and coffee pots.....	W. J. Johnson.....	234,712	Nov. 23	1116	301	18	1195
Strainer. Milk.....	T. H. Ludington.....	230,301	July 20	934	265	18	168
Strainer. Tea and coffee pot.....	G. N. Root.....	225,766	Mar. 23	938	271	17	647
Straining-cover for milk-pails.....	S. June.....	224,699	Feb. 17	840	239	17	373
Strap: See Baby-chair strap. Sleigh-bell strap. Hitching-strap. Wagon-body strap. Shawl-strap.							
Straw-board. Machine for lining.....	G. S. Eyster.....	226,733	Apr. 20	695	193	17	883
Straw-board. Machine for lining sheets of.....	G. S. Eyster.....	231,024	Aug. 10	500	141	18	334
Straw-carrier.....	W. Pierpont.....	227,649	May 18	651	185	17	1106
Straw-carrier.....	F. W. and T. B. Sumner.....	229,649	July 6	156	44	18	32
Straw-cutter.....	D. V. Cash.....	234,905	Nov. 30	1361	365	18	1241
Straw-cutter.....	A. J. Colburn.....	230,747	Aug. 3	173	51	18	274
Straw-cutter.....	A. H. Franck.....	235,423	Dec. 14	448	127	18	1364
Straw-cutter.....	T. Hartley.....	231,422	Aug. 24	955	269	18	422
Straw-cutter.....	W. A. Morgan.....	224,104	Feb. 3	155	44	17	229
Straw-cutter.....	J. R. Teass.....	229,202	June 22	1254	345	17	1442
Straw-cutter.....	D. A. Walker.....	223,781	Jan. 20	687	185	17	139
Straw-cutter gearing mechanism.....	J. Weichhart.....	225,671	Mar. 16	810	237	17	617
Straw-cutting machine.....	E. D. Greer.....	235,523	Dec. 14	575	163 164	18	1385
Straw-stacker.....	L. N. Clark.....	225,344	Mar. 9	436	127	17	542
Street-lighting apparatus.....	E. S. Ritchie.....	232,148	Sept. 14	319	90	18	584
Street-sprinkler.....	W. R. Paddeock.....	227,569	May 11	556	159	17	1080
Street-sprinkler.....	J. N. Schureman.....	226,119	Mar. 30	1364	384	17	728
Street-sweeper.....	W. B. Dunning.....	229,390	June 29	1486	409	17	1481
Street-sweeper.....	E. G. Reck.....	223,297	Jan. 6	112	28	17	21
Strength-tester.....	A. W. Browne.....	233,918	Nov. 2	104	27	18	1004
String-instruments. Key for tuning.....	J. Singer.....	234,642	Nov. 16	1021	273	18	1173
Stripping-machine.....	J. Dien.....	227,501	May 11	477	137	17	1067
Stub cutter and slicer.....	W. A. Wright.....	230,516	July 27	1220	344	18	221
Stud and button.....	P. Z. S. Bulet.....	225,337	Mar. 9	429	125	17	541
Stud and clasp.....	M. B. Scott.....	234,337	Nov. 9	620	169	18	1098
Stud. Shirt.....	C. G. Bloomer.....	230,608	Aug. 3	11	3	18	249
Stuffing-box.....	J. A. Osgeod and E. P. Monroe.....	234,325	Nov. 9	607	165 166	18	1096
Stuffing-box.....	J. A. Osgeod and E. P. Monroe.....	234,326	Nov. 9	608	166	18	1096
Stuffing-box.....	T. Walker.....	228,957	June 15	973	265	17	1393
Stuffing-box. Piston-rod.....	F. Bold.....	232,106	Sept. 14	279	78	18	577
Stump-extractor.....	W. Armstrong.....	224,376	Feb. 10	467	134	17	300
Stump-extractor.....	S. D. Fry.....	227,238	May 4	179	52	17	1007
Stump-extractor.....	E. O'Neill.....	232,614	Sept. 28	891	246	18	693
Stump-extractor.....	M. Schmaly.....	226,884	Apr. 27	887	246	17	926
Stump-extractor.....	J. C. Sharp.....	234,728	Nov. 23	1133	305 306	18	1197
Stump-extractor.....	J. Whitfield.....	232,866	Oct. 5	84	23	18	752

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'gt.	Vol.	Page.
Stump-extractor .....	W. H. Wright .....	227,087	Apr. 27	1135	311	17	964
Stump-puller .....	J. S. Lloyd .....	228,088	May 25	1174	334	17	1200
Stump-puller .....	B. S. Miles .....	227,914	May 25	973	279	17	1168
Stump-puller .....	J. S. Mulhollen .....	225,196	Mar. 2	243	68	17	498
Stump-puller .....	J. H. Sherrill .....	231,243	Aug. 17	762	213	18	383
Stump-puller .....	P. C. Thompson .....	229,776	July 6	306	85	18	53
Stump-puller .....	J. G. Trump .....	224,746	Feb. 17	887	254	17	380
Stump-puller .....	W. J. Watson .....	234,357	Nov. 9	643	175	18	1102
Stump-puller .....	W. O. Youngblood .....	235,842	Dec. 21	959	267	18	1457
Submarine grappling-tools. Operating	C. F. Pike .....	228,557	June 8	480	128	17	1312
Sugar. Apparatus for cooling cube.	J. V. V. Booraem .....	227,477	May 11	454	130	17	1063
Sugar. Apparatus for liquoring lump.	E. Langen .....	226,078	Mar. 30	1317	371	17	731
Sugar-cane juice. Apparatus for concentrating	J. B. Thoms .....	226,255	Apr. 6	120	34	17	767
Sugar. Centrifugal apparatus for liquoring hard	F. O. Matthiessen .....	225,939	Mar. 30	1147	326	17	695
Sugar. Fabrication of .....	M. De La Vega and L. D'Oliveira .....	235,345	Dec. 14	357	.....	18	1348
Sugar in centrifugal machines. Apparatus for liquoring hard	E. E. Quimby .....	223,538	Jan. 13	405	108	17	84
Sugar into lumps. Apparatus for chopping.	F. B. McCrea and E. A. Cowper .....	229,728	July 6	249	69, 70	18	45
Sugar-machine. Centrifugal.	R. Frémaux .....	224,674	Feb. 17	818	{ 231 } 232	17	368
Sugar. Machine for the manufacture of cube.	W. Jasper and S. Boushey .....	230,131	July 20	733	205	18	137
Sugar. Mechanism for making cube.	O. B. Stillman .....	230,675	Aug. 3	96	27	18	262
Sugar-molding machine .....	C. H. Hersey .....	225,601	Mar. 16	730	{ 215 } 216	17	603
Sugar-molding machinery .....	W. H. Wiester .....	231,638	Aug. 24	1192	334	18	459
Sugar. Process and apparatus for preparing saccharate of lime and obtaining	H. A. J. Manoury .....	232,995	Oct. 5	237	65	18	777
Sugar-washing process and apparatus .....	J. V. V. Booraem .....	235,202	Dec. 7	176	48	18	1310
Sulky .....	A. Bedford .....	226,826	Apr. 27	811	226	17	914
Sulky .....	W. S. Frazier .....	233,744	Oct. 26	1178	328	18	958
Sulky .....	W. S. Frazier .....	233,745	Oct. 26	1179	328	18	958
Sulky. Trotting .....	T. H. Brown .....	223,215	Jan. 6	7	2	17	3
Sulky. Trotting .....	W. J. Douley .....	226,987	Apr. 27	1009	280	17	945
Sulky. Trotting .....	P. Wineman and G. W. Bohannon .....	227,086	Apr. 27	1134	311	17	964
Sulphur, copper-matte, &c., from pyrites. Production of	J. Hollway .....	234,129	Nov. 9	374	.....	18	1056
Summer-furnace .....	G. F. Robinson .....	229,756	July 6	282	79	18	50
Sunshade .....	R. Ray .....	229,912	July 13	468	130	18	87
Sunshade-holder .....	A. B. Smith .....	235,304	Dec. 7	284	80	18	1328
Sunshade. Laborer's .....	R. Ray .....	229,465	June 29	1571	434	17	1494
Supporter:							
See Boot and shoe shank Heel, shank, and counter supporter.							
Carriage-canopy Joist-supporter.							
supporter. Lid-supporter.							
Carriage-curtain Pillow-supporter.							
roller supporter. Rock-drill supporter.							
Carriage-top sup. Sash-supporter.							
porter. Shaft-supporter.							
Crown-sheet sup. Shirt-bosom supporter.							
porter. Shoe-supporter.							
Cuff-supporter. Sink-supporter.							
Doll-supporter. Skirt-supporter.							
Eave-trough sup. Spool-supporter.							
porter. Stocking-supporter.							
Filter-paper sup. Table-leaf supporter.							
porter. Telephone-supporter.							
Garment-supporter. Thill-supporter.							
er. Tongue-supporter.							
Hammock-supporter. Trace-supporter.							
er. Umbrella-supporter.							
Heel and shank sup. Uterine supporter.							
porter. Wagon-seat supporter.							
Suppository-mold .....	J. W. See .....	224,734	Feb. 17	876	250	17	379
Surcingle .....	C. H. Trott .....	235,316	Dec. 7	296	84	18	1330
Surface-gage .....	F. J. Rabbeth .....	228,391	June 1	260	73	17	1269
Surface-gage .....	A. Schiffing .....	225,950	Mar. 30	1170	332	17	699
Surgical bandage .....	J. Jacques .....	236,035	Dec. 28	1212	334	18	1505
Surgical splints. Felting for .....	W. H. Johnstone .....	226,076	Mar. 30	1313	.....	17	720
Surgical splints. Manufacture of .....	W. H. Johnstone .....	224,783	Feb. 24	963	{ 274 } 275	17	408
Surveying and plotting instrument .....	C. W. Hergenröder .....	231,799	Aug. 31	1397	{ 394 } 395	18	499
Surveying-instrument .....	T. M. Jackson .....	234,284	Nov. 9	562	153	18	1088
Surveying-instrument .....	C. F. Jespersen .....	231,325	Aug. 17	847	238	18	398
Suspender-clamp .....	M. Altmann .....	226,693	Apr. 20	655	182	17	876
Suspender-clasp .....	C. H. Cleveland .....	231,999	Sept. 7	151	39	18	548
Suspender-end .....	J. Betts .....	226,267	Apr. 6	135	38	17	770
Suspender-end .....	L. H. Day .....	230,532	July 27	1237	349	18	225
Suspender-end .....	T. O. Potter .....	225,639	Mar. 16	775	227	17	611
Suspender-end .....	A. Shenfield .....	227,183	May 4	108	32	17	996
Suspender-end .....	M. Silberstein .....	231,856	Aug. 31	1470	413	18	510
Suspender-ends. Buckle-loop for .....	E. A. Smith .....	227,592	May 11	582	166	17	1085
Suspender-pulleys. Metallic housing for .....	T. O. Potter .....	226,928	Apr. 27	940	261	17	934
Suspender-strap wobbling .....	J. O. Fryer .....	230,122	July 20	722	202	18	136
Suspender straps or ends. Material for .....	O. Kleinberger .....	225,145	Mar. 2	189	53	17	489
Suspenders .....	J. A. Adamson .....	232,664	Sept. 28	951	261	18	703
Suspenders .....	M. Altmann .....	223,628	Jan. 20	524	141	17	113
Suspenders .....	H. Andres .....	226,952	Apr. 27	964	268	17	938
Suspenders .....	M. G. Gunning .....	234,029	Nov. 2	253	69	18	1027
Suspenders .....	J. Hayden .....	225,824	Mar. 23	1004	288	17	658
Suspenders .....	J. Herman .....	231,798	Aug. 31	1396	394	18	498
Suspenders .....	J. Katzenberg .....	229,141	June 22	1194	327	17	1433
Suspenders .....	J. B. Sharp .....	235,028	Nov. 30	1507	405	18	1266

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. G.	Vol.	Page.
Suspenders .....	H. and W. Turner .....	225,082	Mar. 2	126	36	17	478
Suspension-bracket .....	G. Knapp .....	235,363	Dec. 14	376	103	18	1352
Swarm-catcher .....	J. W. Bailey .....	228,299	June 1	168	47	17	1254
Swift .....	C. C. E. Van Alstine .....	225,185	Mar. 2	227	64	17	495
Swimming apparatus .....	M. Coloney .....	235,669	Dec. 21	753	214	18	1422
Swing .....	G. W. Bauer .....	233,914	Nov. 2	98	26	18	1003
Swing .....	J. W. Bowen .....	226,482	Apr. 13	392	110	17	824
Swing .....	A. B. Harmon .....	228,065	May 25	1149	327	17	1195
Swing .....	W. F. Phillips .....	229,457	June 29	1561	430	17	1492
Swing .....	W. S. Tothill .....	231,942	Sept. 7	75	19, 20	18	536
Swing and cradle. Combined baby .....	S. J. Anderson and A. J. Talbot .....	228,014	May 25	1096	312	17	1186
Swing and rocker. Combined .....	B. Baker .....	235,062	Dec. 7	3	1	18	1281
Swing. Child's .....	A. G. Forster .....	235,758	Dec. 21	859	240	18	1439
Swing. Portable .....	W. J. Watson .....	236,127	Dec. 28	1329	365	18	1525
Swinging gate .....	N. H. Long .....	228,823	June 15	833	{ 227 228 }	17	1373
Switch:							
See Electric switch. Telephone and micro-							
Electric-light switch. Telephone-circuit switch.							
Interlocking. Telephone-exchange switch.							
Locked switch. Telephone-line switch.							
Railway-switch. Telephonic switch.							
Telephone-switch.							
Switch and signal connections. Foundation for .....	C. H. Jackson .....	223,650	Jan. 20	544	147	17	116
Switch attachment .....	H. F. Cox .....	232,176	Sept. 14	357	100	18	590
Switch-lock .....	J. W. Reinhart .....	226,107	Mar. 30	1350	380	17	726
Switch-lock .....	J. W. Reinhart .....	227,301	May 4	240	70	17	1017
Switch-operating mechanism .....	L. H. Parkhurst .....	227,089	Apr. 27	1137	312	17	964
Switch-stand .....	A. K. Mansfield .....	227,372	May 11	340	99	17	1044
Switch-stand and interlocking apparatus .....	J. T. Halsey .....	227,688	May 18	694	{ 197 198 }	17	1112
Switches and signals. Locking apparatus for .....	J. Saxby .....	230,200	July 20	812	{ 230 231 }	18	150
Swivel-hook for tightening and connecting ropes .....	M. R. Skinner .....	224,738	Feb. 17	879	251	17	379
Syringe and force-pump. Combined .....	P. C. Lewis .....	230,639	Aug. 3	54	15	18	255
Syringe attachment .....	S. Turner .....	228,422	June 1	289	82	17	1273
Syringe. Double-acting pump .....	J. Ramsey, Jr. .....	233,279	Oct. 12	590	163	18	843
Syringes from celluloid and other plastic material.	M. C. Leferts .....	235,953	Dec. 28	1120	309	18	1491
Manufacture of							
Table:							
See Billiard-table. Paper-hanger's table.							
Dining-table. Railway turn-table.							
Extension-table. Secretary-table.							
Extension settee-table. Self-waiting table.							
Folding table. Sewing-machine table.							
Ironing-table. Turn-table.							
Kitchen-table. Work-table.							
Table .....	T. W. Morrison .....	224,302	Feb. 10	382	108	17	286
Table .....	J. E. Thomas .....	225,182	Mar. 2	225	63	17	495
Table-fastening .....	J. B. Quevedo .....	230,571	July 27	1279	360	18	232
Table-knife .....	A. W. Cox .....	229,961	July 13	525	145	18	95
Table-leaf support .....	D. T. Clemons .....	227,732	May 18	751	212	17	1121
Table-leaf support .....	F. T. Jackson .....	232,973	Oct. 5	216	58	18	774
Table-leg. Removable .....	J. F. Winchell .....	231,880	Aug. 31	1500	420	18	514
Table stand and basket .....	F. Ratcliff .....	232,847	Oct. 5	62	18	18	749
Tablet. Erasable .....	R. F. Gaylord .....	230,700	Aug. 3	121	35	18	266
Tablet-holder and hand-stamp. Combined .....	J. F. Barrows .....	228,592	June 8	526	140	17	1318
Tablet. Writing .....	A. Beach .....	223,980	Feb. 3	8	3	17	204
Tablet. Writing .....	J. I. Carr .....	233,069	Oct. 12	338	94	18	800
Tablet. Writing .....	J. F. Tapley .....	224,806	Feb. 24	993	281	17	412
Tablets. Slating compound for erasable .....	H. W. Holly .....	225,133	Mar. 2	178	.....	17	487
Tack-driver .....	G. J. Capewell .....	231,006	Aug. 10	477	136	18	331
Tack-extractor .....	G. J. Capewell .....	233,599	Oct. 26	1017	253	18	931
Tack-strip .....	E. Woodward and M. Brock .....	226,817	Apr. 20	785	218	17	898
Tack-strip .....	E. Woodward and M. Brock .....	226,818	Apr. 20	785	218	17	899
Tack-strips. Machine for making .....	E. Woodward and M. Brock .....	230,386	July 20	1033	292	18	184
Tacking-machine .....	G. W. Copeland and M. Brock .....	234,854	Nov. 30	1296	349	18	1231
Tackle or pulley block .....	T. R. Ferrall .....	228,335	June 1	203	57	17	1260
Tag. Butcher's .....	T. J. Allsop and E. McKenna .....	229,514	July 6	3	1	18	9
Tally. Grain .....	R. G. Brown .....	227,409	May 11	375	110	17	1050
Tally. Grain .....	T. Sandford .....	230,824	Aug. 3	267	76	18	290
Tally. Grain .....	W. Thornton .....	226,635	Apr. 20	594	165	17	867
Tally. Lumber .....	J. L. Paxson .....	227,571	May 11	558	159	17	1080
Tank:							
See Flush-tank. Storage-tank.							
Measuring-tank. Water-tank.							
Oil-tank.							
Sewage-transportation tank.							
Tannic acid. Obtaining .....	J. Holtz .....	231,489	Aug. 24	1026	288	18	434
Tannin extract .....	P. Gondolo .....	231,035	Aug. 10	510	.....	18	336
Tanning and preparing leather .....	S. Bloom .....	230,225	July 20	841	.....	18	154
Tanning apparatus .....	J. Davis .....	234,659	Nov. 23	1052	284	18	1185
Tanning. Composition for use in .....	H. Trenk .....	236,115	Dec. 28	1311	.....	18	1522
Tanning compound .....	S. Ulmo .....	230,841	Aug. 3	237	.....	18	294
Tapning extract .....	H. L. Wilcox .....	235,923	Dec. 28	1079	.....	18	1484
Tanning process .....	T. P. Tucker .....	229,928	July 13	490	.....	18	90
Tap .....	J. T. Hayden .....	226,067	Mar. 30	1304	367	17	719
Tap .....	W. Kenworthy .....	224,921	Feb. 24	1116	319	17	432
Tap and faucet .....	P. F. Gardner .....	233,668	Oct. 26	1098	305	18	944
Tap. Barrel .....	Z. Fetterly and O. Dutton .....	234,377	Nov. 9	665	181	18	1106

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dist.	Vol.	Page.
Tap bushing and valve. Combined	K. C. Gillette	226,059	Mar. 30	1297	365	17	718
Tap. Expansion	L. W. Stockwell	227,394	May 11	361	106	17	1048
Tap. Fluid	C. J. Waddell	224,495	Feb. 10	596	172	17	321
Tap for barrels. Measuring and registering.	E. J. Shaw	225,170	Mar. 2	213	60	17	493
Tap or nipple for water and gas mains	T. B. Farrington	223,327	Jan. 6	144	36, 37	17	26
Tap-valve.	M. G. Gillette	225,471	Mar. 16	587	171	17	578
Tap-wrench.	T. R. Way	226,643	Apr. 20	602	168	17	868
Tapping-guard.	A. Schindler	224,231	Feb. 3	292	85	17	252
Tap, &c., holder	E. P. Hafl	229,403	June 29	1501	413	17	1483
Target.	W. A. Tangeman	225,734	Mar. 23	896	261	17	641
Target. Artificial-bird	M. Warno	224,254	Feb. 3	316	91	17	255
Target-ball.	G. Ligowsky and A. Woerber	225,621	Mar. 16	755	222	17	608
Target. Bird.	R. M. Jones, T. Legge, and J. Bartlett.	235,251	Dec. 7	226	61	18	1318
Target. Electric annunciating.	M. Ullman	232,424	Sept. 21	672	185	18	650
Target. Electrical recording.	R. H. Savage	232,417	Sept. 21	663	182 183	18	648
Target. Flying	S. Bray	229,066	June 22	1137	310	17	1425
Target. Flying	G. Ligowsky	231,919	Sept. 7	47	11	18	532
Tawing hides	C. Heinzerling	231,797	Aug. 31	1396		18	498
Taxidermy. Ichthyological	H. E. Davidson	233,078	Oct. 12	348	95	18	802
T-coupling	D. W. Clark	227,148	May 4	75	20	17	990
Tea and coffee pot.	E. B. Manning and M. Seips	234,135	Nov. 9	381	104	18	1057
Tea-kettle	N. A. Menaar	226,668	Apr. 20	628	175	17	872
Tea-kettle	W. Warwick	224,118	Feb.	172	49	17	232
Tea-kettle	W. S. Withers	229,512	June 29	1626	448	17	1500
Tea out of the original tea-chests. Device for emptying	M. G. Griffin	235,082	Dec. 7	25	8	18	1285
Tea-pot	J. E. Jeffords	235,247	Dec. 7	223	60	18	1317
Tea-pot	I. T. Rue	234,148	Nov. 9	395	107	18	1059
Teaching arithmetic. Apparatus for.	A. Classen	234,247	Nov. 9	515	142	18	1081
Teaching penmanship. Hand-guide for use in	L. Twitchell	226,942	Apr. 27	954	265	17	936
Teeth. Artificial	J. F. Porter	233,013	Oct. 5	257	71	18	780
Teeth. Composition for filling	T. Fletcher	225,817	Mar. 23	998		17	657
Teeth. Composition for filling	T. Fletcher	226,738	Apr. 20	702		17	884
Telegraph.	J. R. Finney	234,260	Nov. 9	531	146	18	1083
Telegraph. Acoustic	T. A. Edison	235,142	Dec. 7	97	29	18	1297
Telegraph and telephone systems. Circuit and signaling apparatus for district	T. N. Vail	224,855	Feb. 24	1046	298	17	420
Telegraph apparatus.	G. D'Infreville	233,859	Nov. 2	41	11	18	993
Telegraph apparatus. Printing	T. M. Foote	233,407	Oct. 19	773	213 214	18	880
Telegraph. Automatic	T. F. Taylor and G. Smith	234,347	Nov. 9	630	172	18	1100
Telegraph box. Fire-alarm	G. A. Gawler	232,702	Sept. 28	991	273	18	710
Telegraph-conductor. Insulated	M. M. and R. P. Manly	231,825	Aug. 31	1430	402	18	503
Telegraph conductor. Underground	H. Clay	226,159	Apr. 6	12	4	17	748
Telegraph conductor. Underground	A. T. Woodward	226,468	Apr. 13	372	106	17	820
Telegraph-conductors. Underground conduit for	S. E. Coddington	231,537	Aug. 24	1082	304	18	441
Telegraph-conductors. Underground conduit for	R. B. Lamb	229,259	June 29	1321	364	17	1460
Telegraph. Duplex	J. E. Fenn	231,904	Sept. 7	31	7	18	529
Telegraph. Duplex	D. B. Grandy	230,001	July 13	574	159	18	103
Telegraph. Duplex	W. Hadden	228,458	June 8	353	96	17	1293
Telegraph. Duplex	F. W. Jones	225,140	Mar. 2	184	52	17	488
Telegraph. Duplex	A. Muirhead	234,490	Nov. 16	826	220	18	1140
Telegraph. Duplex	A. Muirhead, J. A. Briggs, and G. K. Winter.	227,040	Apr. 27	1075	297	17	955
Telegraph. Duplex	H. Van Hoebenbergh	227,079	Apr. 27	1123	309	17	962
Telegraph. Duplex and multiplex	A. Muirhead	230,802	Aug. 3	235	68	18	285
Telegraph. Electric	O. Lugo	235,159	Dec. 7	118	34	18	1301
Telegraph. Electric	O. Lugo	235,161	Dec. 7	121	34	18	1301
Telegraph. Fire-alarm	G. R. Floyd	233,223	Oct. 12	524	146	18	832
Telegraph-key	P. B. Delany	232,007	Sept. 7	161	42	18	550
Telegraph-key	W. P. Phillips	228,111	May 25	1197	341	17	1204
Telegraph-key	J. M. Witmer	230,911	Aug. 10	375	109	18	315
Telegraph line. Underground	E. A. Kitzmiller	235,883	Dec. 28	1026	284	18	1476
Telegraph line. Underground	A. B. Turner	223,868	Jan. 27	814	218	17	169
Telegraph-lines. Call apparatus for	J. P. Stabler	235,058	Nov. 30	1544	415	18	1272
Telegraph lines. Conductor for underground	J. D. Townsend	235,611	Dec. 14	685	196	18	1403
Telegraph lines. Terminal for underground	W. R. Patterson	233,162	Oct. 12	453	125	18	819
Telegraph. Multiple	H. C. Nicholson	232,749	Sept. 28	1044	286	18	719
Telegraph-pole	W. H. Milliken	232,360	Sept. 21	593	163	18	637
Telegraph-pole	J. L. Taylor	230,085	July 13	658	184	18	116
Telegraph. Printing	C. J. Wiley	227,868	May 18	895	255	17	1144
Telegraph. Printing	C. J. Wiley	227,869	May 18	897	256	17	1145
Telegraph. Quadruplex	A. Muirhead and G. K. Winter	227,039	Apr. 27	1070	297	17	955
Telegraph. Quadruplex	H. C. Nicholson	234,197	Nov. 9	458	124	18	1071
Telegraph. Railway-car	J. R. Finney	231,552	Aug. 24	1098	308	18	444
Telegraph. Railway-car	T. A. B. Putnam	231,498	Aug. 21	1036	290	18	435
Telegraph-relay	G. M. Hopkins	229,414	June 29	1511	417	17	1484
Telegraph relay and sounder	W. E. Davis	233,214	Oct. 12	512	142	18	830
Telegraph relay and sounder	S. D. Field	227,750	May 18	772	218	17	1124
Telegraph relay apparatus	H. Van Hoebenbergh	235,472	Dec. 14	514	149	18	1375
Telegraph relay. Multiple	J. C. Wilson	229,068	June 22	1115	303	17	1421
Telegraph-repeater	F. Catlin	231,477	Aug. 24	1013	285	18	432
Telegraph repeater. Fire-alarm	E. Rogers and M. G. Crane	223,248	Jan. 6	48	12	17	11
Telegraph signal-box. Fire-alarm	J. M. Gardiner	225,528	Mar. 16	716	211	17	601
Telegraph-sounder	H. Van Hoebenbergh	230,013	July 13	585	162	18	105
Telegraph-sounder. Mechanical	J. B. Clopton	229,095	June 22	1146	313	17	1426
Telegraph-sounders. Circuit-equalizer for	T. Cochran	228,871	June 15	886	241	17	1380
Telegraph-switch	A. G. Snell	227,851	May 18	878	250	17	1141
Telegraph. Telephonic	E. Gray	233,345	Oct. 19	697	191	18	868
Telegraph. Telephonic	C. A. Randall	236,081	Dec. 28	1264	349	18	1514
Telegraph. Underground	D. Brooks, Jr.	235,502	Dec. 14	553	158	18	1381
Telegraph. Underground	D. Brooks, Jr.	235,734	Dec. 21	831	233	18	1435

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Draw.	Vol.	Page.
Telegraph. Underground.....	S. D. Field.....	233,492	Oct. 19	870	240	18	896
Telegraph. Underground.....	C. Linford.....	224,551	Feb. 17	669	191	17	344
Telegraph-wire. Insulated.....	A. Muirhead.....	230,803	Aug. 3	236	68	18	285
Telegraphic-wires. Device for deadening sound-vibrations in.....	E. H. Clark.....	227,095	May 4	5	2	17	979
Telegraph-wires into pipes. Method of introducing.....	D. Brooks, Jr.....	235,735	Dec. 21	832	233	18	1435
Telegraphs. Alarm-recorder for fire.....	I. P. Hanlenbeck.....	224,903	Feb. 24	1098	314	17	429
Telegraphs. Distributing the wires of underground.....	W. Mackintosh.....	228,658	June 8	598	159	17	1329
Telegraphs. Transmitter for fire-alarm.....	J. H. Tilley.....	230,508	July 27	1212	341	18	220
Telegraphic purposes. Mechanism for perforating paper for.....	F. Anderson and T. M. Foote.....	228,585	June 8	512	138	17	1316
Telegraphic purposes. Mechanism for perforating paper for.....	T. M. Foote and F. Anderson.....	228,623	June 8	558	148	17	1323
Telegraphic sounder.....	T. Cochran.....	228,608	June 8	542	145	17	1320
Telegraphic sounder.....	J. R. Edwards.....	231,290	Aug. 17	810	297	18	392
Telegraphic switch-board.....	C. E. Chinnock.....	229,672	July 6	182	51	18	35
Telegraphing by induced currents.....	O. Lugo.....	235,160	Dec. 7	120	34	18	1301
Telegraphy.....	W. S. Brewer.....	233,138	Oct. 12	426	117	18	814
Telegraphy. Dynamo-electric.....	O. Lugo.....	235,687	Dec. 21	773	219	18	1425
Telegraphy. Dynamo-electric.....	O. Lugo.....	235,688	Dec. 21	776	219	18	1426
Telegraphy. Dynamo-electric.....	O. Lugo.....	235,689	Dec. 21	779	219	18	1426
Telegraphy. Dynamo-electric and inductive.....	O. Lugo.....	235,690	Dec. 21	781	220	18	1426
Telephone.....	G. L. Anders.....	233,592	Oct. 26	1011	281	18	930
Telephone.....	C. E. Buell.....	232,675	Sept. 28	962	264	18	705
Telephone.....	C. E. Buell.....	232,676	Sept. 28	963	264	18	705
Telephone.....	C. E. Buell.....	232,677	Sept. 28	964	264	18	706
Telephone.....	C. T. Dickson.....	235,856	Dec. 28	997	276	18	1471
Telephone.....	J. Goodman.....	234,978	Nov. 30	1450	390	18	1256
Telephone.....	F. A. Gower.....	236,021	Dec. 28	1195	330	18	1503
Telephone.....	J. H. Irwin.....	233,251	Oct. 12	560	155		
Telephone.....	J. H. Irwin.....	234,579	Nov. 16	952	251	18	1161
Telephone.....					252		
Telephone.....	W. C. Lockwood.....	233,360	Oct. 19	716	195	18	871
Telephone.....					196		
Telephone.....	W. C. Lockwood.....	233,527	Oct. 19	912	251	18	904
Telephone.....	J. P. McDermott.....	231,599	Aug. 24	1154	323	18	453
Telephone.....	S. W. Robinson.....	227,653	May 18	655	186	17	1107
Telephone.....	S. Russell.....	228,395	June 1	263	74	17	1269
Telephone.....	J. M. Stearns, Jr.....	231,627	Aug. 24	1181	330	18	453
Telephone. Acoustic.....	J. S. Davis.....	233,215	Oct. 12	513	143	18	830
Telephone. Acoustic.....	H. T. Walters and W. Voorhis.....	235,049	Nov. 30	1533	413	18	1270
Telephone-alarms. Cut-out for.....	H. H. Barker and G. Edmonston.....	232,665	Sept. 28	952	261	18	704
Telephone and electro-magnet. Combined.....	A. E. Dolbear.....	226,906	Apr. 27	909	253	17	930
Telephone and microphone switch.....	A. E. Briggs.....	235,066	Dec. 7	7	2	18	1282
Telephone-call.....	C. D. Haskins.....	234,772	Nov. 23	1184	320	18	1206
Telephone call attachment.....	W. C. Lockwood.....	233,526	Oct. 19	911	251	18	904
Telephone call-bell.....	H. C. Bliss.....	226,480	Apr. 13	386	109	17	823
Telephone call-register.....	C. J. Bell.....	229,302	June 29	1379	379	17	1467
Telephone call-register.....	S. Tainter.....	229,495	June 29	1609	443	17	1498
Telephone call-signals. Magneto-electric generator for.....	E. T. Gilliland.....	230,264	July 20	897	254	18	162
Telephone call system.....					255		
Telephone-circuit.....	C. G. Curtis and F. B. Creeker.....	230,530	July 27	1233	348	18	224
Telephone circuit-closer.....	T. A. Watson.....	232,788	Sept. 28	1098	301	18	728
Telephone-circuit switch.....	A. G. Davis.....	232,806	Oct. 5	11	4	18	741
Telephone-circuit switch.....	G. L. Anders.....	228,294	June 1	162	45	17	1252
Telephone-circuit switch.....	G. L. Anders and T. A. Watson.....	229,299	June 29	1375	378	17	1467
Telephone. Electric.....	E. Berliner.....	233,969	Nov. 2	173	44	18	1015
Telephone. Electric.....	W. F. Cook.....	227,736	May 18	756	213	17	1122
Telephone. Electric.....	E. Gray.....	224,013	Feb. 3	48	15	17	211
Telephone. Electric speaking.....	R. G. Brown.....	224,138	Feb. 3	190	54	17	235
Telephone. Electric speaking.....	C. A. Cheever.....	235,508	Dec. 14	558	159	18	1382
Telephone. Electric speaking.....	A. W. Rose.....	231,239	Aug. 17	758	212	18	353
Telephone. Electric speaking.....	A. W. Rose.....	231,362	Aug. 17	884	249	18	403
Telephone. Electro-chemical receiving.....	T. A. Edison.....	231,704	Aug. 31	1280	360	18	480
Telephone-exchange apparatus.....	J. W. Sec.....	235,056	Nov. 30	1540	414	18	1272
Telephone-exchange switch.....					415		
Telephone-exchange system.....	G. W. Coy.....	224,653	Feb. 17	791	224	17	363
Telephone-exchange system.....	T. A. Watson.....	234,154	Nov. 9	400	109	18	1060
Telephone-exchange system and furniture.....	C. E. and W. H. Jones.....	234,192	Nov. 9	450	121	18	1069
Telephone-line alarm.....					122		
Telephone-line alarm.....	H. H. Barker and G. Edmonston.....	225,321	Mar. 9	410	119	17	538
Telephone-line switch.....	C. D. Haskins.....	234,773	Nov. 23	1188	320	18	1206
Telephone-lines. Call-signal for.....					321		
Telephone-lines. Electric signal for.....	F. R. Richmond.....	227,056	Apr. 27	1094	302	17	958
Telephone-lines. Signal-box for.....					303		
Telephone-lines. Signaling apparatus for.....	L. S. White.....	236,131	Dec. 28	1332	366	18	1525
Telephone-lines. Signaling apparatus for.....	J. W. See and W. N. Gray.....	229,279	June 29	1344	369	17	1462
Telephone-lines. Signaling apparatus for.....	G. L. Anders.....	231,888	Sept. 7	11	2	18	526
Telephone-lines. Signaling apparatus for.....	G. H. Bliss.....	225,327	Mar. 9	420	122	17	539
Telephone-lines. Signaling apparatus for.....	F. B. Powers.....	231,087	Aug. 10	566	159	18	346
Telephone. Magnet.....					160		
Telephone. Magneto-electric.....	A. G. Tisdell.....	227,861	May 18	890	253	17	1143
Telephone. Mechanical.....	T. A. Watson.....	231,739	Aug. 31	1325	373	18	487
Telephone. Mechanical.....	J. C. Coombs.....	230,924	Aug. 10	387	111	18	317
Telephone. Mechanical.....	W. J. Hutchins.....	228,817	June 15	823	225	17	1371
Telephone. Mechanical.....	J. J. Still.....	225,177	Mar. 2	221	62	17	494
Telephone-receiver.....	R. M. Lockwood and S. H. Bartlett.....	220,825	June 15	836	228	17	1373
Telephone-receiver.....	R. M. Lockwood and S. H. Bartlett.....	231,065	Aug. 10	541	152	18	341
Telephone-receiver.....	C. A. Randall.....	235,021	Nov. 30	1498	403	18	1265
Telephone. Relay.....	H. C. Strong.....	235,658	Dec. 21	739	210	18	1419
Telephone signal and switch apparatus.....	W. J. Dudley.....	234,663	Nov. 23	1057	285	18	1186
Telephone signal apparatus.....	T. A. Watson.....	233,899	Nov. 2	82	22	18	1000



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. 5b	Vol.	Page.
Telephone signal apparatus. Electric.....	A. M. Frankenberg.....	235,424	Dec. 14	450	{ 127 128 129 }	18	1364
Telephone-signal. Visible.....	C. Ader.....	226,584	Apr. 20	531	149	17	857
Telephone signaling apparatus.....	H. G. Fiske.....	226,229	Apr. 6	92	25	17	762
Telephone. Speaking.....	R. Eickemeyer.....	230,698	Aug. 3	118	34, 35	18	266
Telephone. Speaking.....	S. D. Field.....	234,554	Nov. 16	902	242	18	1153
Telephone. Speaking.....	W. Gillett.....	232,705	Sept. 28	994	{ 273 274 }	18	711
Telephone. Speaking.....	E. Gray.....	233,343	Oct. 19	694	190	18	868
Telephone. Speaking.....	E. Gray.....	233,344	Oct. 19	696	{ 190 191 }	18	868
Telephone-stand.....	T. A. Watson.....	232,787	Sept. 28	1097	301	18	728
Telephone-support.....	S. C. Cary.....	224,073	Feb. 3	122	35	17	223
Telephone-support.....	A. C. Hubbard.....	230,779	Aug. 3	207	60	18	280
Telephone support and switch.....	S. Bergman.....	235,988	Dec. 28	1158	322	18	1497
Telephone support. Hand.....	M. Kelch.....	231,329	Aug. 17	850	239	18	398
Telephone-switch.....	F. A. Klemm.....	230,288	July 20	920	261	18	166
Telephone-switch.....	E. N. Lord.....	226,528	Apr. 13	451	127	17	833
Telephone-switch.....	T. A. Watson.....	232,159	Sept. 14	338	95	18	587
Telephone-switch board.....	T. G. Ellsworth.....	226,991	Apr. 27	1013	281	17	946
Telephone system.....	G. D'Infreville.....	234,578	Nov. 16	932	{ 250 251 }	18	1158
Telephone system.....	C. A. Randall.....	227,300	May 4	237	69, 70	17	1017
Telephone system.....	C. A. Randall.....	235,019	Nov. 30	1494	{ 402 403 }	18	1264
Telephone system and apparatus.....	C. A. Randall.....	235,020	Nov. 30	1496	403	18	1264
Telephone systems. Individual signaling apparatus } for district.....	G. L. Anders and T. A. Watson.....	229,298	June 29	1373	{ 377 378 }	17	1466
Telephone systems. Switch and signaling appara- } tus for.....	G. L. Anders.....	228,586	June 8	517	{ 138 139 }	17	1317
Telephone-transmission.....	G. L. Anders.....	231,466	Aug. 24	1002	232	18	430
Telephone-transmitter.....	G. M. Hopkins.....	231,226	Aug. 17	741	208	18	380
Telephone-transmitter.....	J. H. Irwin.....	223,352	Jan. 6	166	44	17	30
Telephone-transmitter.....	J. H. Irwin.....	225,388	Mar. 9	482	140	17	550
Telephone-transmitter.....	F. A. Klemm.....	227,270	May 4	208	61	17	1012
Telephone-transmitter.....	F. A. Klemm.....	235,635	Dec. 21	715	203	18	1415
Telephone-transmitter.....	R. M. Lockwood and S. H. Bartlett.....	228,824	June 15	834	228	17	1373
Telephone-transmitter.....	R. M. Lockwood and S. H. Bartlett.....	228,826	June 15	837	228	17	1373
Telephone-transmitter.....	R. M. Lockwood and S. H. Bartlett.....	229,152	June 22	1206	330	17	1435
Telephone-transmitter.....	R. M. Lockwood and S. H. Bartlett.....	229,153	June 22	1207	330	17	1435
Telephone-transmitter.....	A. W. Rose.....	229,843	July 13	401	110	18	76
Telephone-transmitter.....	G. W. Smith.....	235,707	Dec. 21	800	225	18	1430
Telephone transmitter and repeater.....	R. M. Lockwood and S. H. Bartlett.....	229,151	June 22	1204	330	17	1435
Telephone-transmitter. Electric.....	A. G. Bell.....	228,507	June 8	416	114	17	1302
Telephone. Transmitting.....	L. W. Sutton, Jr.....	229,489	June 29	1606	443	17	1498
Telephone. Voltaic transmitting.....	A. K. Eaton.....	223,718	Jan. 20	617	165	17	127
Telephones. Attachment for mechanically connect- } ing hand.....	W. H. Sawyer.....	224,359	Feb. 10	448	129	17	296
Telephones. Automatic short-circuiter for.....	A. G. Bell.....	230,168	July 20	775	216	18	143
Telephones. Dental attachment for.....	H. G. Fiske.....	228,254	June 1	113	33	17	1244
Telephones. Electric call for.....	C. S. Eaton.....	228,047	May 25	1124	320	17	1191
Telephones. Electro-magnetic regulator for con- } tact.....	W. L. Voelker.....	231,738	Aug. 31	1324	373	18	487
Telephones. Flexible conducting-cord for.....	F. Shaw.....	232,908	Oct. 5	136	36	18	760
Telephonic exchange system and device.....	W. A. Childs.....	225,797	Mar. 23	974	{ 280 281 }	17	653
Telephonic receiving-instrument.....	S. D. Field.....	233,493	Oct. 19	870	241	18	896
Telephonic signaling apparatus.....	G. H. Bliss.....	223,469	Jan. 13	321	86	17	70
Telephonic signaling apparatus.....	C. Raymond, 2d.....	231,932	Sept. 7	61	15	18	534
Telephonic switch and connection.....	G. Westinghouse, Jr.....	224,565	Feb. 17	684	{ 195 196 }	17	346
Telephonic transmitter.....	J. E. Watson.....	226,376	Apr. 6	250	73	17	791
Telephony. Magneto-electric speaking.....	F. Rossetti.....	235,173	Dec. 7	134	38	18	1304
Tellurian.....	T. McDonough.....	234,050	Nov. 2	275	75	18	1032
Temperature of water and other liquids. Apparatus } for regulating the.....	B. Latham and J. T. Way.....	230,058	Aug. 10	531	149	18	340
Temple-rollers. Machine for setting teeth in.....	E. S. Stimpson.....	230,674	Aug. 3	94	27	18	262
Temple-teeth. Tool for setting.....	E. S. Stimpson.....	229,646	July 6	153	43	18	31
Tenoning-machine.....	G. O. Hall.....	231,310	Aug. 17	827	233	18	395
Tenoning-machine.....	H. Molby.....	236,060	Dec. 28	1244	343	18	1511
Tenoning-machine.....	J. J. White and W. S. Kelley.....	224,752	Feb. 17	893	255	17	382
Tent-frame.....	A. E. Shemeley.....	232,213	Sept. 14	403	112	18	598
Tent-pole socket.....	H. Mayer.....	224,200	Feb. 3	262	76	17	147
Tent-slip.....	H. B. Thompson.....	234,896	Nov. 30	1348	362	18	1239
Terra-cotta kiln.....	A. Hall.....	230,479	July 27	1183	333	18	215
Testicle-suspensory.....	T. W. Heinemann.....	230,702	Aug. 3	122	36	18	266
Testing-machine.....	G. Matheson.....	225,529	Mar. 16	652	{ 190 191 }	17	589
Testing-machine.....	T. Olsen.....	223,214	June 1	59	18, 19	17	1237
Testing-machine.....	R. H. Thurston.....	233,712	Oct. 26	1148	319	18	953
Tether.....	E. H. Angell.....	226,014	Mar. 30	1244	351	17	710
Tether.....	H. E. Briggs.....	230,229	July 20	844	238	18	154
Tether.....	W. L. Gerard.....	229,691	July 6	204	56	18	38
Tether.....	W. H. Maxey.....	225,404	Mar. 9	503	145	17	553
Tether.....	J. Rodger.....	236,091	Dec. 28	1273	351	18	1516
Tether. Animal.....	S. D. Redman.....	224,353	Feb. 10	441	127	17	295
Tether. Animal.....	W. A. Witt.....	227,666	May 18	668	190	17	1109
Textile and other fabrics. Machine for cutting.....	A. and H. Warth.....	225,031	Mar. 2	63	18	17	467
Textile fabric.....	A. M. Pyie.....	227,241	May 4	181	53	17	1007
Textile fabrics. Drying.....	A. Delharpe.....	235,937	Dec. 28	1097	303	18	1487
Textile fabrics. Treating.....	C. F. Hartmann.....	227,248	May 4	188	55	17	1008
Theater-stage.....	M. H. Mallory.....	228,468	June 8	362	99	17	1294

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Theatrical and gymnastic performances. Apparatus for use in	G. Oliver	233,274	Oct. 12	585	161	18	842
Theatrical and other performances. Apparatus for use in	G. Oliver	233,540	Oct. 19	925	255	18	906
Theatrical performances. Apparatus for use in	G. Oliver	233,273	Oct. 12	584	161	18	842
Theft-detector	N. Friis and G. N. Fenn	233,743	Oct. 26	1177	327	18	958
Therapeutical appliance. Electrical	E. A. Tefft	234,343	Nov. 9	631	172	18	1100
Thermal motor	F. Reinhold	231,449	Aug. 24	986	277	18	427
Thermo-dynamic engine	E. Thuemmler	226,570	Apr. 13	492	139	17	839
Thermometer-tube	J. Barry	233,963	Nov. 2	168	43	18	1014
Thermometer-tube	H. Weinhausen	233,586	Oct. 19	978	270	18	915
Thermostat for incubators	G. H. Stockmann	233,444	Oct. 19	818	225	18	888
Thill-adjuster	E. Covert	226,039	Mar. 30	1276	359	17	715
Thill-coupling	H. Albers	225,502	Mar. 16	619	179 180	17	583
Thill-coupling	J. E. Bean and A. G. Kooker	230,394	July 27	1080	304	18	198
Thill-coupling	E. Beebe, J. M. Connor, and E. Beebe, Jr.	228,506	June 8	414	113	17	1302
Thill-coupling	D. S. Blue	234,746	Nov. 23	1156	311	18	1201
Thill-coupling	W. H. Brace	225,333	Mar. 9	426	124	17	541
Thill-coupling	C. T. Brockett	226,032	Mar. 30	1265	356	17	713
Thill-coupling	W. M. Curry	230,617	Aug. 3	25	7	18	251
Thill-coupling	L. S. Edleblute	234,760	Nov. 23	1169	315	18	1203
Thill-coupling	C. C. Egerton	224,408	Feb. 10	501	144	17	305
Thill-coupling	J. A. Fairbanks	229,310	June 29	1391	381	17	1468
Thill-coupling	J. Fasig	224,667	Feb. 17	809	229	17	367
Thill-coupling	W. W. French	227,237	May 4	178	52	17	1006
Thill-coupling	G. W. Fried	236,014	Dec. 28	1188	329	18	1502
Thill-coupling	C. L. Goehring	224,422	Feb. 10	517	147	17	308
Thill-coupling	O. Grisé	228,993	June 22	1039	283	17	1410
Thill-coupling	W. Harder	225,011	Mar. 2	34	10	17	462
Thill-coupling	S. S. Hepbron	232,966	Oct. 5	205	55	18	771
Thill-coupling	C. G. Hill	228,815	June 15	821	224	17	1371
Thill-coupling	G. W. Hunter	235,438	Dec. 14	469	133	18	1367
Thill-coupling	F. P. Johnson	226,755	Apr. 20	721	201	17	887
Thill-coupling	E. P. Joslyn	226,452	Apr. 13	355	101	17	818
Thill-coupling	J. E. Klein	224,191	Feb. 3	252	73	17	245
Thill-coupling	P. Khipple	234,483	Nov. 16	817	218	18	1139
Thill-coupling	A. B. Kurtz	227,367	May 11	330	97	17	1043
Thill-coupling	T. Larouche	231,057	Aug. 10	531	149	18	339
Thill-coupling	L. B. Lathrop	234,591	Nov. 16	965	256	18	1164
Thill-coupling	W. A. Levanway	228,086	May 25	1172	333	17	1199
Thill-coupling	J. O. Maloy	229,047	June 22	1092	297	17	1418
Thill-coupling	W. Munson	228,832	June 15	843	230	17	1374
Thill-coupling	P. P. O'Brien	224,218	Feb. 3	281	81	17	250
Thill-coupling	W. Pfeifer	232,366	Sept. 21	600	164	18	638
Thill-coupling	C. Renner, Jr.	229,555	July 6	59	16	18	17
Thill-coupling	S. M. Rhoads	225,867	Mar. 23	1051	300	17	666
Thill-coupling	T. M. Richardson	229,753	July 6	280	79	18	50
Thill-coupling	T. M. Richardson	234,067	Nov. 2	294	81	18	1035
Thill-coupling	J. F. C. Rider	233,805	Oct. 26	1249	347	18	971
Thill-coupling	D. T. Robinson	229,470	June 29	1580	437	17	1495
Thill-coupling	J. Rupert	228,684	June 8	621	167	17	1333
Thill-coupling	J. R. Sanborn and E. A. Ferry	235,654	Dec. 21	735	209	18	1419
Thill-coupling	E. Shafer	226,251	Apr. 6	117	32	17	766
Thill-coupling	E. H. Shine	230,076	July 13	651	181	18	115
Thill-coupling	W. C. Shipherd	231,455	Aug. 24	991	279	18	428
Thill-coupling	D. W. Shoudy	233,119	Oct. 12	404	112	18	811
Thill-coupling	H. Slade	227,850	May 18	877	250	17	1141
Thill-coupling	E. Soper	231,457	Aug. 24	993	279	18	429
Thill-coupling	W. H. Stevens	224,113	Feb. 3	166	47	17	231
Thill-coupling	C. M. Stoup	230,586	July 27	1297	365	18	235
Thill-coupling	L. B. Stuart	235,826	Dec. 21	936	261	18	1453
Thill-coupling	J. S. Szybowski	230,971	Aug. 10	440	126	18	325
Thill-coupling	J. S. Welch	232,580	Sept. 21	839	233	18	678
Thill-coupling	C. Worthen	223,792	Jan. 20	699	188	17	141
Thill-coupling	J. H. Wygant	226,436	Apr. 13	337	96	17	815
Thill-coupling jack	J. E. Best and W. E. Higgins	226,020	Mar. 30	1252	353	17	711
Thill-coupling jack	E. Miller	223,940	Jan. 27	900	239	17	182
Thill-couplings. Anti-rattler for	E. Ely	225,975	Mar. 30	1198	340	17	703
Thill-couplings. Anti-rattler for	J. S. Healey	223,731	Jan. 20	632	170	17	130
Thill-support	J. A. Beamisderfer	229,357	June 29	1453	400	17	1477
Thill-support	L. F. Hutchins	233,858	Nov. 2	40	10	18	993
Thimble-blanks of celluloid and other material. Apparatus for and process of forming	W. H. Halsey	224,682	Feb. 17	825	234	17	370
Thimbles from celluloid or other material. Die for molding	E. Villiers	233,898	Nov. 2	82	21	18	1000
Thrasher and separator	C. Tostenson	233,818	Oct. 26	1262	352 353	18	973
Thrasher and separator. Grain	M. Williams	225,450	Mar. 9	548	159	17	561
Thrasher. Clover	J. E. Woodard and W. B. Bennet	233,719	Oct. 26	1154	321	18	954
Thrasher fan-blower	H. L. Warren	234,356	Nov. 9	642	175	18	1102
Thrashers. Band-cutting feeder for	R. T. Worthington	233,959	Nov. 2	163	42	18	1013
Thrashers, &c. Shoe for grain	A. H. Johnson	225,838	Mar. 23	1016	292	17	660
Thrashing and mowing machine	M. Gorel	234,270	Nov. 9	545	149	18	1086
Thrashing-machine	C. G. Case	226,973	Apr. 27	969	275	17	942
Thrashing-machine	J. Ellis	230,536	July 27	1242	350	18	225
Thrashing-machine	J. H. Elward	230,622	Aug. 3	29	8,9	18	252
Thrashing-machine	J. H. Elward	234,971	Nov. 30	1440	387 388	18	1254
Thrashing-machine	D. Geiser	234,708	Nov. 23	1110	299 300	18	1194
Thrashing-machine	J. Hawk and J. Miller	235,631	Dec. 21	711	202	18	1415

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Thrashing-machine	G. Holcomb	223,914	Jan. 27	866	230	17	178
Thrashing-machine	C. A. Jenkins	231,806	Aug. 31	1409	397	18	500
Thrashing-machine	T. Quinlivan	223,536	Jan. 13	403	107	17	84
Thrashing-machine	F. W. Robinson	235,897	Dec. 28	1043	288	18	1478
Thrashing-machine	H. M. Smith	232,080	Sept. 7	241	67	18	564
Thrashing-machine	M. Sullivan and H. Christofferson	232,087	Sept. 7	252	69	18	565
Thrashing-machine and clover-huller	W. M. Koppes	235,256	Dec. 7	233	63	18	1319
Thrashing-machine and clover-huller. Combined	H. A. Miller	230,562	July 27	1269	358	18	230
Thrashing-machine dust arrester and conveyer	F. A. and C. W. Olds	226,344	Apr. 6	222	64	17	786
Thrashing-machine-sieve protector	T. J. Hubbell	225,608	Mar. 16	742	219	17	606
Thrashing-machines. Concave for	A. Potter	233,544	Oct. 19	932	257	18	908
Thrashing or hulling cylinder	J. I. McClung	234,599	Nov. 16	971	258	18	1165
Thrashing, separating, and cleaning machine	J. Weller	235,187	Dec. 7	149	42, 43	18	1307
Thread and pin holder	S. C. Nash	234,922	Nov. 30	1378	371	18	1244
Thread-case	E. L. Fitch	231,027	Aug. 10	503	142	18	335
Thread-cleaner	T. Finigan	225,217	Mar. 9	277	79	17	517
Thread cleaning and polishing mechanism	C. Ellis	229,686	July 6	200	55	18	37
Thread-cutter	M. D. Barringer	234,384	Nov. 16	701	189	18	1120
Thread stretching and smoothing device	L. E. Leigh	235,261	Dec. 7	239	65	18	1321
Threads. Machine for cleaning and smoothing silk and other	E. J. Martin and E. Taylor	233,156	Oct. 12	447	123	18	818
Three-horse equalizer	F. L. Chilson	231,760	Aug. 31	1349	379	18	490
Threshold-strip	A. Baird	226,823	Apr. 27	809	226	17	913
Ticket-case	S. R. Stratton	231,863	Aug. 31	1475	414	18	511
Ticket-holder	H. Conried	226,721	Apr. 20	683	190	17	882
Ticket-holder	S. Herzberg	224,686	Feb. 17	829	235	17	371
Ticket-holder	C. Scherich	228,280	June 1	149	41	17	1250
Ticket. Railway	A. B. Groff	225,009	Mar. 2	30	9	17	462
Ticket. Railway	E. L. Howard	235,243	Dec. 7	218	59	18	1317
Ticket. Railway	F. C. Nims	228,213	June 1	58	18	17	1236
Ticket-reel	J. S. Ives	227,534	May 11	513	148	17	1073
Tickets. Apparatus for issuing and registering	J. N. Maskelyne	236,053	Dec. 28	1232	340	18	1509
Tidal motor	T. S. Speakman	235,105	Dec. 7	47	15	18	1289
Tie:							
<i>See</i> Bag-tie.	Railway-tie.						
Bale-tie.	Railway cross-tie.						
Necktie.							
Tie-strap attachment	J. Hudson and F. R. Alderman	228,534	June 8	447	122	17	1306
Tile and brick kiln	E. Davenport	235,216	Dec. 7	190	52	18	1312
Tile and brick machine	P. H. Kells	229,143	June 22	1197	328	17	1434
Tile facing and squaring machine	C. F. Powers	228,929	June 15	946	237	17	1389
Tile for roofs and pavements. Illuminating	W. J. Fryer, Jr.	235,677	Dec. 21	760	216	18	1423
Tile. Illuminating	J. Jacobs	231,805	Aug. 31	1408	397	18	500
Tile joint. Drain	O. L. W. Dietz	233,483	Oct. 19	860	237	18	895
Tile-kiln	W. L. and B. Wickers	229,848	July 13	405	111	18	76
Tile. Paving	W. J. Mitchell	224,938	Feb. 24	1131	323	17	435
Tiles. Device for raising	J. W. Teetzel	232,089	Sept. 7	254	70	18	565
Tilting can	J. M. Scandlin	235,174	Dec. 7	136	39	18	1304
Tilting chair. Folding	J. E. Wakefield	235,184	Dec. 7	145	41	18	1306
Timber-chutes. Frog for	H. L. Day	229,971	July 13	536	149	18	97
Timber. Machine for framing	R. H. Watson	232,575	Sept. 21	833	231 232	18	677
Timber. Preserving	H. Flad	231,784	Aug. 31	1378	389	18	496
Time by gas-pressure. Indicating	G. G. Wagner	234,358	Nov. 9	643	175	18	1102
Time-check. Watchman's	W. H. O'Connell	230,565	July 27	1271	359	18	230
Time-detector. Watchman's	A. Newman	227,641	May 18	641	183	17	1105
Time. Instrument for computing	H. J. Richardson	235,703	Dec. 21	797	224	18	1429
Time-lock	C. Albert and C. Seybold	235,330	Dec. 14	335	93	18	1345
Time-lock	E. H. Flint	229,992	July 13	562	156	18	101
Time-lock	B. F. Flint	232,604	Sept. 23	879	243	18	692
Time-lock	O. E. Pillard	225,862	Mar. 23	1044	299	17	665
Time-lock	S. Shaw	233,443	Oct. 19	816	225	18	888
Time-lock unlocking attachment	S. M. Lillie	223,933	Jan. 27	890	237	17	182
Time-piece. Railway	D. P. Hoyle	233,249	Oct. 12	558	154	18	838
Time-signal	J. Johnson	233,101	Oct. 12	383	105	18	807
Tin and other metal ware. Bottom for	J. E. Finley	223,641	Jan. 20	536	144	17	114
Tin-can lining	F. W. Bartlett	235,981	Dec. 28	1151	319	18	1496
Tin pans. Device for forming	A. Cox	232,463	Sept. 21	718	199	18	657
Tin vessel	O. J. Backus	225,204	Mar. 9	263	75	17	515
Tinned-metal plates by heat and pressure. Automatic apparatus for uniting	G. H. Perkins	234,423	Nov. 16	745	201	18	1127
Tinsmith's shearing device	O. W. Stow and H. S. Grannis	230,905	Aug. 10	370	107	18	314
Tippet and collar. Combined	I. S. Cohen	228,873	June 15	888	242	17	1380
Tire. Bicycle	T. W. Moran	235,552	Dec. 14	611	174	18	1391
Tire. Elastic	J. L. Hancock and N. Salamon	232,266	Sept. 14	469	130	18	610
Tire-heating furnace	H. Duffey	226,164	Apr. 6	19	5	17	749
Tire-tightener	C. L. Genoways	235,610	Dec. 14	684	195	18	1403
Tire-tightener	G. W. and E. Rishel	227,995	May 25	1075	306	17	1183
Tire-tightener	E. P. Ross	231,102	Aug. 10	583	166	18	349
Tire-tightener	W. T. Sprouse	228,135	May 25	1223	348	17	1208
Tire-tightener	H. W. Suttou	234,088	Nov. 2	317	87	18	1039
Tire-tightener. Wagon	J. C. Kane	223,518	Jan. 13	322	101	17	80
Tire-upsetter	J. F. McCoy	227,557	May 11	537	155	17	1078
Tire-upsetter	A. H. Struppler	229,647	July 6	151	43	18	31
Tire-upsetting device	J. Loftin	234,918	Nov. 30	1374	370	18	1243
Tire-upsetting machine	N. S. Cary	225,916	Mar. 30	1114	318	17	690
Tire-upsetting machine	J. W. Hudson	225,286	Mar. 9	371	108	17	531
Tire-upsetting machine	W. C. Niblett and C. Bronk	224,105	Feb. 3	156	44	17	229
Toasting-iron. Reversible	C. G. Stafford	224,740	Feb. 17	881	251	17	379
Tobacco and plant hiller	M. Schubert	235,576	Dec. 14	642	182	18	1396
Tobacco. Apparatus for curing	S. M. Candidus	224,142	Feb. 3	192	55	17	235
Tobacco. Apparatus for curing and sweating	C. S. Philips	231,329	Nov. 9	612	167	18	1097
Tobacco-box	T. Balmer	226,154	Apr. 6	6	2	17	747
Tobacco-box	T. Balmer and L. Lottier	224,508	Feb. 17	619	179	17	335

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Tobacco-box	P. Lorillard, Jr.	224,096	Feb. 3	148	42	17	223
Tobacco-caddy	R. Finzer	228,182	June 1	23	7	17	1231
Tobacco. Concentrated extract of	R. T. Hill	229,130	June 22	1183		17	1431
Tobacco-curing apparatus	A. Gordon	234,467	Nov. 16	798	214	18	1136
Tobacco-curing apparatus	H. J. Mattfeldt	227,280	May 4	217	64	17	1013
Tobacco-curing apparatus	F. Schwarb	231,363	Aug. 17	835	249	18	404
Tobacco-cutter	J. B. Adt	233,629	Nov. 2	1	1	18	987
Tobacco-cutter	A. Rippien	234,068	Nov. 2	295	81	18	1035
Tobacco-cutting machine	J. W. Crossley	232,337	Sept. 21	558	154	18	631
Tobacco-cutting machine	J. W. Crossley and A. A. Hagen	227,959	May 25	1031	294	17	1177
Tobacco-cutting machine	W. H. Emery	233,220	Oct. 12	521	{ 144 145 }	18	831
Tobacco-drier	J. L. Turner and W. Angel	230,680	Aug. 3	101	29	18	263
Tobacco-drying furnace	C. W. Hughes	226,517	Apr. 13	439	123	17	831
Tobacco-drying machine	G. B. F. Cooper	223,319	Jan. 6	134	34	17	24
Tobacco-elevator	J. W. Gault and W. A. Forman	224,172	Feb. 3	230	66	17	241
Tobacco-fly. Poisoned artificial Jamestown-weed flower for attracting and destroying the	W. B. Wood	229,222	June 22	1275	350	17	1445
Tobacco-grinding apparatus	S. V. Appleby	226,953	Apr. 27	965	268	17	938
Tobacco-hoisting apparatus	W. S. Guy	228,342	June 1	209	59	17	1261
Tobacco-hoisting apparatus	W. S. Guy	231,309	Aug. 17	826	232	18	395
Tobacco. Improving the color and quality of leaf	G. Robinson	225,422	Mar. 9	520		17	556
Tobacco-leaf-cutting knife	S. M. Dougherty	230,116	July 20	716	200	18	135
Tobacco-leaves. Apparatus for coloring	J. M. Henningsen	234,474	Nov. 16	807	216	18	1138
Tobacco-leaves. Machine for booking	J. H. Pawling	226,778	Apr. 20	741	207	17	891
Tobacco. Machine for drying leaf	E. R. Hearn	229,126	June 22	1177	{ 322 323 }	17	1431
Tobacco. Machine for making plug	M. J. Farmer	229,813	July 13	362	101	18	70
Tobacco. Machine for making plug	E. T. Pollard	225,865	Mar. 23	1049	300	17	666
Tobacco. Machine for pressing and cutting plug	L. W. Spencer	225,174	Mar. 2	217	61	17	493
Tobacco, &c. Machine for wrapping	L. J. Gordon and W. J. Tait	224,332	Feb. 10	415	{ 118 119 }	17	291
Tobacco. Manufacture of coherent compressed	I. Lindsley	235,886	Dec. 28	1030	{ 284 285 }	18	1476
Tobacco. Marking plug	W. Painter	234,608	Nov. 16	980	261	18	1167
Tobacco-mill board	J. Minetree	235,274	Dec. 7	255	71	18	1323
Tobacco-pipe	S. T. Bacon	223,630	Jan. 20	525	141	17	113
Tobacco-pipe	G. Römisch	234,810	Nov. 23	1239	333	18	1214
Tobacco. Plug	P. H. Duke	231,022	Aug. 10	498	140	18	334
Tobacco. Plug	J. Rupp	227,927	May 25	987	283	17	1170
Tobacco-press	J. H. McGowan	226,334	Apr. 6	211	61	17	784
Tobacco. Process and apparatus for ordering leaf	J. C. Handley	224,290	Feb. 10	369	105	17	284
Tobacco. Process and apparatus for treating	G. Robinson	230,061	July 13	635	177	18	112
Tobacco. Process and machine for drying	L. Lottier and O. E. Perrigo	229,434	June 29	1333	422	17	1458
Tobacco. Process and machinery for manufacturing	S. W. Jones	224,439	Feb. 10	539	155	17	311
Tobacco. Purifying	W. Wohltmann	225,903	Mar. 23	1085	310	17	672
Tobacco rolling and covering machine	C. A. Snyder	225,241	Mar. 9	308	88	17	522
Tobacco rolling and cutting machine	H. W. Holley	225,833	Mar. 23	1011	291	17	659
Tobacco smoking-tube. Compressed	I. Lindsley	225,885	Dec. 28	1029	284	18	1476
Tobacco-steaming apparatus	A. Harnish	226,515	Apr. 13	437	122	17	831
Tobacco. Sweat-house for curing	C. S. Phillips	228,928	June 15	945	257	17	1388
Tobacco-treating apparatus	P. H. Mayo	228,770	June 15	761	209	17	1363
Toe-weight	J. H. Fenton	226,295	Apr. 6	171	49	17	777
Toggle-bearing. Compensating	S. L. Marsden	227,554	May 11	533	154	17	1077
Toilet-case	C. Carroll	234,388	Nov. 16	705	190	18	1120
Toilet-case	F. A. M. Deschamps	230,178	July 20	787	221	18	146
Toilet implement. Duplex	A. McDonald	228,660	June 8	599	160	17	1329
Toilet-pad	H. O. Reed	227,131	May 4	45	13	17	986
Tomb. Artificial-stone	H. Wilson	226,380	Apr. 6	256	75	17	793
Tombstone	E. Goode	231,663	Aug. 31	1235	347	18	473
Tombstones to bases, &c. Attaching	S. Gregory	230,546	July 27	1254	354	18	227
Tongs	I. R. L. Boardman	230,460	July 27	1162	328	18	212
Tongs. Crucible and cupel	W. E. Judson	232,977	Oct. 5	219	59	18	774
Tongs. Pipe	S. Fawcett	228,333	June 1	201	56	17	1259
Tongs. Pipe	H. P. Huntton	230,634	Aug. 3	44	13	18	254
Tongs. Pipe	C. H. Lovrien	234,304	Nov. 9	585	159	18	1092
Tongs. Pipe	J. O. Morse	235,957	Dec. 28	1124	310	18	1491
Tongs. Roofing	T. B. Beeson	233,965	Nov. 2	170	43	18	1014
Tongue coupling. Wagon	W. W. Gottier	226,307	Apr. 6	183	53	17	779
Tongue-hound for wagons	R. W. McClelland	234,600	Nov. 16	972	259	18	1165
Tongue-support	A. C. Smith and H. W. King	235,465	Dec. 14	508	146	18	1374
Tongue support. Wagon	G. F. Wingate	234,446	Nov. 16	773	207	18	1132
Tongue supporter. Vehicle	O. Hebert	223,732	Jan. 20	633	170	17	130
Tool. Combination	C. S. Garrigus	225,587	Mar. 16	715	211	17	601
Tool. Combination	C. S. Garrigus	233,342	Oct. 19	693	190	18	867
Tool. Combination	D. Hartmann	227,773	May 18	796	225	17	1128
Tool. Combination	G. H. Pierce	234,378	Nov. 9	666	182	18	1106
Tool. Combination	J. H. Randall	228,115	May 25	1201	342	17	1204
Tool. Compound	A. W. Lyman	224,022	Feb. 3	59	18	17	213
Tool for grasping and holding articles	J. Goodrich	227,686	May 18	691	197	17	1112
Tool-handle	G. T. Culver	233,479	Oct. 19	856	236	18	894
Tool-handle	J. Gearon	235,426	Dec. 14	457	129	18	1365
Tool-handle	H. A. Moore	224,786	Feb. 24	973	276	17	408
Tool-handle	A. Nawadny	227,380	May 11	349	102	17	1045
Tool-handle	J. H. Richardson and J. C. Calhoun	225,868	Mar. 23	1052	301	17	666
Tool-handle	F. A. Stohlmann	236,105	Dec. 28	1297	356	18	1520
Tool-handle	G. Telfer	235,043	Nov. 30	1526	411	18	1269
Tool-handle fastening	L. H. Roberts	227,057	Apr. 27	1097	303	17	958
Tool-handle fastening	A. E. Tangen	224,244	Feb. 3	305	89	17	254
Tool holder or handle. Elastic rubber	A. D. Tyler	224,251	Feb. 3	314	91	17	255
Tool socket-handle	R. B. Donaldson	233,486	Oct. 19	863	238	18	895
Tooth-crown and process of setting the same. Artificial	C. M. Richmond	224,355	Feb. 10	442	127	17	296
Tooth-extractor	W. Cunningham	225,110	Mar. 2	152	44	17	482

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Tooth-pick.	E. Osgood.	234,422	Nov. 16	745	201	18	1127
Top.	J. R. Barry.	226,958	Apr. 27	972	270	17	939
Top. Chromatic.	H. Van Altena.	233,820	Oct. 26	1267	354	18	974
Top-prop block.	L. F. Carrier.	230,618	Aug. 3	25	7	18	251
Topophone.	A. M. Mayer.	224,199	Feb. 3	260	75	17	246
Torch.	C. O. Hammer.	232,265	Sept. 14	468	130	18	610
Torch.	H. Préfontaine.	228,476	June 8	370	101	17	1296
Torch.	H. Préfontaine.	233,163	Oct. 12	454	125	18	819
Torch.	G. D. Smith.	233,039	Oct. 5	291	82	18	786
Torch. Lamp.	W. Killoran.	224,830	Feb. 24	1015	287	17	416
Torpedo-boat.	W. H. Mallory.	223,855	Jan. 27	794	213	17	166
Torpedo-boat.	G. W. McMullen.	227,637	May 18	634	182	17	1104
Torpedo. Grave.	R. B. Lanum.	228,651	June 8	591	157	17	1328
Torpedo. Marine.	M. Coloney.	225,465	Mar. 16	520	168	17	576
Torsion-spring.	R. Mulholland.	230,327	July 20	965	274	18	173
Tow-cleaning machine.	W. Keane.	227,261	May 4	201	59	17	1010
Towel-rack.	J. R. Roberts.	223,952	Jan. 27	910	242	17	184
Tower. Extension.	D. M. Pfautz.	226,101	Mar. 30	1342	378	17	725
Toy.	E. L. Curial.	231,408	Aug. 24	938	265	18	420
Toy.	A. Dorn.	224,585	Feb. 17	719	204	17	352
Toy.	G. W. Ebricht.	223,719	Jan. 20	618	166	17	127
Toy.	S. F. Maynard and H. N. Parker.	231,435	Aug. 24	969	272	18	425
Toy.	E. L. Morris.	235,641	Dec. 21	722	205	18	1416
Toy.	W. S. Reed.	231,972	Sept. 7	126	31	18	544
Toy.	R. M. Rose.	233,166	Oct. 12	457	126	18	820
Toy.	J. B. Secor.	232,075	Sept. 7	238	65	18	563
Toy.	C. C. Shepherd.	230,502	July 27	1207	340	18	219
Toy bank.	G. W. Eddy.	232,699	Sept. 28	988	272	18	710
Toy bank.	E. L. Golisch.	232,257	Sept. 14	459	127	18	608
Toy. Bell.	E. C. Barton.	235,405	Dec. 14	424	119	18	1360
Toy. Bell.	L. Kyser and A. C. Rex.	233,628	Oct. 26	1051	293	18	936
Toy building-block. Composition.	O. and G. Lilienthal.	233,780	Oct. 26	1217	338	18	965
Toy. Creeping.	P. Von Erichen.	228,231	June 1	83	25	17	1240
Toy frog. Automatic.	C. M. Alexander.	224,375	Feb. 10	467	134	17	300
Toy gipsy-kettle.	B. G. Johnson.	234,873	Nov. 30	1319	355	18	1234
Toy handkerchief.	C. A. Hotchkiss.	232,034	Sept. 7	192	52	18	556
Toy hoop.	J. L. M. Du Four.	230,697	Aug. 3	117	34	18	266
Toy horse and wagon.	F. W. Carpenter.	234,534	Nov. 16	872	232	18	1148
Toy insect.	P. Von Erichen.	227,933	May 25	993	285	17	1171
Toy lantern. Revolving.	J. B. Robinson.	230,575	July 27	1283	361	18	232
Toy locomotive.	J. B. Secor.	228,562	June 8	488	130	17	1313
Toy molding apparatus.	J. A. Crandall.	232,598	Sept. 28	873	242	18	691
Toy molding apparatus.	J. A. Crandall.	232,599	Sept. 28	874	242	18	691
Toy money-bank.	C. A. Bailey.	234,518	Nov. 16	855	228	18	1145
Toy money-box.	J. H. Bowen.	226,831	Apr. 27	817	228	17	915
Toy money-box.	J. H. Bowen.	232,628	Sept. 28	907	250	18	697
Toy money-box.	L. Kyser and A. C. Rex.	232,511	Sept. 21	773	214	18	667
Toy money-box.	L. Kyser and A. C. Rex.	232,512	Sept. 21	774	214	18	667
Toy money-box.	E. L. Morris.	230,713	Aug. 3	136	40	18	268
Toy mortar.	L. Kyser and A. C. Rex.	234,132	Nov. 9	378	104	18	1056
Toy pistol.	M. Backes.	226,473	Apr. 13	379	107	17	822
Toy pistol.	H. S. Lockwood.	229,721	July 6	242	67	18	44
Toy pistol.	J. H. Rose.	228,682	June 8	619	167	17	1332
Toy pistol.	J. B. Secor.	226,361	Apr. 6	237	70	17	789
Toy pistol.	H. A. Smith.	232,768	Sept. 28	1066	292	18	723
Toy railway-train.	F. W. Carpenter.	227,956	May 25	1029	294	17	1177
Toy railway-train.	F. W. Carpenter and J. Herring.	227,216	May 4	153	45	17	1002
Toy savings-bank.	E. L. Morris.	223,293	Jan. 6	110	27	17	20
Toy shooting-gallery.	C. A. Bailey.	229,656	July 6	164	45	18	33
Toy shuttlecock.	W. Duchemin.	227,884	May 25	939	269	17	1163
Toy wagon and cart.	A. F. Thompson.	227,322	May 4	264	77	17	1021
Toy watch.	R. J. Clay.	223,884	Jan. 27	831	221	17	172
Toy watch and clock.	L. Fried.	227,516	May 11	494	142	17	1070
Toy whip and cane handle.	M. A. Gilman.	233,613	Oct. 26	1032	287	18	934
Toy whistle.	C. Schwartz.	233,377	Oct. 19	738	202	18	875
Trace-carrier.	E. Hanrahan.	231,314	Aug. 17	831	234	18	396
Trace-fastener.	M. M. Bowlus.	223,701	Jan. 20	602	161	17	125
Trace-fastener.	D. C. O'Brien.	235,099	Dec. 7	41	13	18	1288
Trace-fastener.	G. W. Roberts.	230,150	July 20	758	211	18	141
Trace-fastening.	C. W. Barnes.	230,166	July 20	774	216	18	143
Trace-fastening.	W. M. Valentine.	235,182	Dec. 7	143	41	18	1306
Trace-book.	N. S. Taylor.	229,019	June 22	1064	290	17	1414
Trace or driving rein.	H. Comstock.	235,211	Dec. 7	186	50	18	1312
Trace-supporter.	A. Fellows, G. A. Isbell, and L. Godard.	223,328	Jan. 6	145	37	17	26
Trace-splicing device.	J. E. Curd.	226,496	Apr. 13	406	115	17	826
Tracing-wheel.	D. W. Moody.	226,622	Apr. 20	574	160	17	864
Track circuit-closer.	J. I. Conklin, Jr.	234,657	Nov. 23	1050	283	18	1184
Track-clearer.	R. B. Locke.	233,359	Oct. 19	714	195	18	871
Track-clearer.	J. Lyker.	223,365	Jan. 6	179	47	17	33
Track gage and level. Combined.	J. T. Ketchledge.	227,791	May 18	817	231	17	1131
Traction-engine.	E. D. Brown and A. J. Hoag.	225,560	Mar. 16	688	201	17	595
Traction-engine.	O. H. Burdett.	224,868	Feb. 24	1059	302	17	423
Traction-engine.	C. G. Cooper.	225,050	Mar. 2	91	25	17	471
Traction-engine.	F. L. Fairchild.	230,762	Aug. 3	190	55	18	277
Traction-engine.	D. J. Havenstrite.	231,569	Aug. 24	1118	313	18	448
Traction-engine.	A. Jillson.	227,259	May 4	199	58	17	1010
Traction-engine.	P. T. Kissane.	236,041	Dec. 28	1220	336	18	1506
Traction-engine.	D. Lippy and J. B. Roush.	230,297	July 20	930	264	18	167
Traction-engine.	J. F. Marks.	232,739	Sept. 28	1031	283	18	717
Traction-engine.	C. M. Miller.	227,441	May 11	411	119	17	1055
Traction-engine.	J. Poitevent.	230,052	July 13	625	174	18	111



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Traction-engine .....	J. C. Spindler and F. L. Fairchild ..	232,375	Sept. 21	611	{ 167 168 }	18	640
Traction-engine .....	J. A. Stout .....	223,405	Jan. 6	219	58, 59	17	40
Traction-engine gearing .....	W. Heilman .....	225,827	Mar. 23	1007	289	17	658
Traction-engines. Pawl-shifter for .....	J. H. Cox .....	232,884	Oct. 5	110	29	18	756
Traction-wheel .....	J. Allenas .....	234,220	Nov. 9	489	134	18	1076
Traction-wheel .....	J. Allenas .....	235,722	Dec. 21	818	229	18	1432
Traction-wheel .....	F. L. Fairchild .....	231,781	Aug. 31	1375	{ 387 388 }	18	495
Traction-wheel .....	H. T. Stith .....	224,741	Feb. 17	882	251	17	379
Traction-wheel .....	C. Taylor .....	226,209	Apr. 6	75	19	17	759
Trains. Device for preventing collisions with disabled .....	A. F. Martel .....	229,048	June 22	1093	297	17	1418
Tramway for curves and cable-gripes .....	C. M. Chubb .....	235,127	Dec. 7	75	23, 24	18	1294
Tramway-rail .....	T. S. Lambert .....	226,864	Apr. 27	856	238	17	921
Transit-instruments. Meridian attachment to .....	B. H. Smith .....	232,309	Sept. 14	517	144	18	619
Transom-lifter .....	J. M. Axtmann .....	233,305	Jan. 6	120	30	17	22
Transom-lifter .....	J. H. R. Prall .....	229,179	June 22	1231	338	17	1439
Transom-lifter .....	F. A. Reiher .....	226,353	Apr. 6	230	67	17	788
Transplanter .....	A. M. Sidwell .....	235,463	Dec. 14	506	145	18	1373
Trap:							
<i>See</i> Animal-trap.      Sand-trap.							
Ball-trap.      Sewer-gas trap.							
Float-trap.      Sink-trap.							
Foul-air trap.      Steam-trap.							
Insect-trap.      Vermin-trap.							
Pigeon-trap.							
Trapeze and tight-rope accessory .....	J. Theurer .....	232,216	Sept. 14	408	113	18	599
Traveling-bag .....	J. W. Lieb .....	233,154	Oct. 12	445	122	18	818
Traveling-bag lock .....	W. Lang .....	227,905	May 25	963	276	17	1166
Tray .....	C. Remhof .....	229,467	June 29	1575	435	17	1494
Tray-blanks. Machine for cutting .....	J. R. Allgire .....	227,711	May 18	729	205	17	1117
Tray. Waiter's .....	D. W. Lear and M. F. Connett .....	226,526	Apr. 13	448	125	17	832
Trays. Machine for making wooden .....	R. Richardi .....	227,580	May 11	565	{ 161 162 }	17	1082
Tread-mill .....	J. Craig .....	230,751	Aug. 3	177	52	18	275
Treadle mechanism .....	D. S. Van Wyck .....	228,424	June 1	290	82	17	1273
Treadle-power machine .....	G. W. Zeigler .....	228,432	June 1	298	84	17	1274
Tree:							
<i>See</i> Boot-tree.      Saddle-tree.							
Boot and shoe tree.      Whiffletree.							
Double-tree.							
Tree-protector .....	A. G. Cook .....	223,996	Feb. 3	26	9	17	207
Tree-protector .....	J. W. Richards .....	228,393	June 1	262	73	17	1269
Trees. Process and apparatus for changing the bearing year of fruit .....	G. H. Taft .....	227,074	Apr. 27	1119	308	17	962
Trianglo. Draftsman's .....	A. Herzog .....	233,618	Oct. 26	1037	288	18	934
Tricycle .....	E. F. Esperandieu .....	226,504	Apr. 13	424	119	17	829
Tricycle .....	F. Fowler .....	224,165	Feb. 3	217	63	17	240
Tricycle .....	F. Fowler .....	227,511	May 11	487	{ 140 141 }	17	1069
Trimmer:							
<i>See</i> Boot and shoe sole      Hub-trimmer.							
edge trimmer.      Pamphlet-trimmer.							
Hedge-trimmer.      Welt-trimmer.							
Heel-trimmer.      Wick-trimmer.							
Trimming .....	C. M. Cooke .....	224,151	Feb. 3	203	59	17	237
Trimming .....	J. Steiger .....	232,909	Oct. 5	137	36	18	760
Trimming .....	W. Walker .....	223,779	Jan. 20	685	184	17	138
Trimming or edging. Pointed .....	J. H. Emmerich .....	229,309	June 29	1390	389	17	1468
Trimming. Flitter for milliners' .....	J. Lambert .....	228,363	June 1	228	65	17	1264
Trimming. Manufacture of .....	E. Breschmann .....	226,484	Apr. 13	394	111	17	824
Triturating and mixing apparatus .....	J. Tregurtha .....	227,395	May 11	361	106	17	1048
Triturating-machine .....	I. Davis .....	227,498	May 11	475	136	17	1067
Triturating-mill .....	J. H. Mitchell .....	223,651	Jan. 20	545	147	17	116
Triturating-mill .....	J. T. Robertson .....	230,660	Aug. 3	80	22	18	259
Trolling reel and cabinet .....	B. F. Chaso .....	230,743	Aug. 3	168	50	18	274
Trough:							
<i>See</i> Earve-trough.      Hog-trough.							
Feed-trough.      Watering-trough.							
Feeding-trough.							
Truck .....	E. L. Howe .....	250,630	Aug. 3	40	12	18	253
Truck .....	E. J. Leyburn .....	234,486	Nov. 16	820	219	18	1140
Truck .....	J. C. Peatie .....	235,647	Dec. 21	727	207	18	1418
Truck .....	M. A. Reynolds .....	226,106	Mar. 30	1349	360	17	726
Truck .....	H. B. Rorko .....	234,836	Nov. 23	1268	341	18	1220
Truck .....	J. A. Taylor .....	230,676	Aug. 3	97	28	18	262
Truck. Adjustable .....	D. A. Green and J. H. Roberts .....	226,997	Apr. 27	1019	283	17	947
Truck and supporting-frame. Combined .....	G. B. Lewis and C. E. Parks .....	232,833	Oct. 5	48	14	18	746
Truck. Barrel .....	B. Colvin .....	229,958	July 13	522	144	18	95
Truck. Car .....	W. T. Browne .....	225,741	Mar. 23	902	263	17	642
Truck. Car .....	W. J. Carroll .....	231,898	Sept. 7	24	5	18	528
Truck. Car .....	J. W. Cooper .....	232,392	Sept. 21	630	174	18	643
Truck. Car .....	R. M. Cosby .....	231,011	Aug. 10	481	137	18	331
Truck. Car .....	E. P. Cowles .....	233,989	Nov. 2	195	51	18	1019
Truck. Car .....	S. Keeler .....	226,324	Apr. 6	198	58	17	782
Truck. Car .....	S. D. King .....	227,792	May 18	818	231	17	1131
Truck. Car .....	C. A. Lindblom .....	231,822	Aug. 31	1426	401	18	503
Truck. Car .....	I. C. Terry .....	228,694	June 8	628	171	17	1334
Truck. Fire-engine .....	C. T. Holloway .....	224,911	Feb. 24	1107	316	17	431
Truck for cars. Transfer .....	C. F. Allen .....	229,072	June 22	1119	304	17	1422
Truck for elevated railways. Car .....	W. W. Riley .....	232,208	Sept. 14	397	110	18	597
Truck-frame. Spring .....	J. Roemer .....	228,781	June 15	778	212	17	1365

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Truck. Hand.....	W. B. Allen.....	233,720	Oct. 26	1155	321	18	954
Truck. Hand.....	B. Colvin.....	227,489	May 11	468	134	17	1066
Truck. Hand.....	M. Johnson.....	224,693	Feb. 17	835	237	17	372
Truck. Hand.....	M. Johnson.....	224,694	Feb. 17	836	238	17	372
Truck. Hand.....	M. Johnson.....	227,790	May 18	816	230	17	1131
Truck. Hand.....	M. Johnson.....	229,422	June 29	1518	419	17	1486
Truck. Hand.....	W. May.....	232,197	Sept. 14	381	106	18	594
Truck. Hand.....	C. E. Skinner and J. Stewart.....	233,292	Oct. 12	611	169	18	847
Truck. Hand.....	J. Stewart, Jr., and G. Peene, Jr.....	233,892	Nov. 2	75	20	18	999
Truck. Hand.....	J. S. Stewart.....	229,770	July 6	301	84	18	52
Truck. Hand.....	W. R. Walton.....	230,844	Aug. 3	289	82	18	295
Truck. Piano.....	W. F. Beck.....	228,857	June 15	869	237	17	1378
Truck. Plow.....	S. W. Fleming.....	231,302	Aug. 17	821	230	18	393
Truck. Plow.....	A. Latham.....	232,515	Sept. 21	777	215	18	667
Truck. Plow.....	S. Peters.....	233,276	Oct. 12	587	162	18	843
Truck. Plow.....	H. C. Strong.....	234,087	Nov. 2	316	87	18	1039
Truck. Railway-car.....	W. T. Browne.....	235,852	Dec. 28	993	275	18	1470
Truck. Safety-car.....	S. L. Skinner.....	223,957	Jan. 27	915	244	17	185
Truck. Stove.....	E. F. Johnson.....	227,016	Apr. 27	1039	289	17	950
Truck. Stove.....	M. B. Schenck.....	234,336	Nov. 9	619	169	18	1098
Truck. Stove.....	H. Shuman.....	231,855	Aug. 31	1469	412	18	510
Truck. Traction.....	G. H. Edwards.....	232,395	Sept. 21	632	175	18	644
Trucks. Rub-iron for car.....	D. E. Small.....	234,621	Nov. 16	994	264	18	1169
Trucks. Safety-hook for car.....	L. B. Stilson.....	225,659	Mar. 16	793	232	17	614
Trucks. Sound-deadener for car.....	O. T. Bedell.....	227,205	May 4	137	39	17	1000
Trumpet. Ear.....	S. North.....	227,178	May 4	103	30	17	995
Trunk.....	W. H. Bell, Sr.....	228,858	June 15	870	237	17	1378
Trunk.....	B. Bloch.....	223,983	Feb. 3	13	5	17	205
Trunk.....	C. F. Clapp.....	222,684	Sept. 28	971	267	18	707
Trunk.....	J. A. Eno.....	232,885	Oct. 5	111	29	18	756
Trunk.....	L. Raphael.....	231,099	Aug. 10	580	165	18	349
Trunk, bed, &c. Combined.....	L. Singer.....	235,032	Nov. 30	1510	406 407	18	1266
Trunk-catch.....	J. A. Eno.....	235,757	Dec. 21	858	239	18	1439
Trunk. Cross-slatted.....	C. A. Taylor.....	225,497	Mar. 16	614	178	17	582
Trunk-fastener.....	A. C. Frankel.....	233,229	Oct. 12	532	148	18	833
Trunk-fastener.....	G. A. Sofield.....	230,827	Aug. 3	272	77	18	291
Trunk-fastener.....	C. A. Taylor.....	232,421	Sept. 21	668	185	18	649
Trunk-lock.....	G. Crouch.....	235,130	Dec. 7	79	25	18	1295
Trunk. Traveling.....	G. E. Marvinne.....	233,683	Oct. 26	1111	309	18	947
Truss.....	H. Becker.....	232,439	Sept. 21	691	191	18	653
Truss.....	A. Chaim.....	228,981	June 22	1023	278	17	1408
Truss.....	G. A. Willard.....	227,708	May 18	719	203	17	1116
Truss. Concave.....	H. A. Stephenson.....	232,858	Oct. 5	74	21	18	751
Truss. Hernial.....	C. H. Tucker.....	233,646	Oct. 26	1073	298	18	940
Truss-pad.....	A. Read.....	234,333	Nov. 9	615	168	18	1097
Tub:							
See Bath-tub.							
Tube:							
See Condenser-tube.	Speaking-tube.						
Cop-tube.	Thermometer-tube.						
Medicine-measuring tube.	Tobacco-smoking tube.						
Paper cop-tube.	Wick-tube.						
Tube-cleaner.....	M. L. Metcalf.....	235,694	Dec. 21	785	221	18	1427
Tube-cleaner.....	S. C. Taft and F. Darling.....	230,588	July 27	1298	366	18	235
Tube-coupling.....	W. C. Allison.....	232,432	Sept. 21	681	187	18	651
Tube-drawing device.....	M. L. Ritchie.....	231,852	Aug. 31	1464	411	18	509
Tube-expander.....	H. H. Collius.....	223,840	Jan. 27	773	207	17	163
Tube-expander.....	W. Tully.....	232,317	Sept. 14	525	146	18	620
Tube-fastening.....	E. H. Bennett.....	235,406	Dec. 14	425	119	18	1360
Tube-forming machine.....	G. W. Blake.....	224,382	Feb. 10	473	136	17	301
Tube-forming machine.....	L. S. White.....	225,035	Mar. 2	67	19	17	468
Tube-machine.....	D. Appel.....	228,162	June 1	2	1	17	1227
Tube-machine.....	W. H. Patterson.....	234,925	Nov. 30	1380	372	18	1245
Tube-making machine.....	P. Reilly.....	225,642	Mar. 16	778	228	17	612
Tube-testing. Apparatus for.....	S. Myers.....	235,798	Dec. 21	903	252	18	1447
Tube-welding ball.....	S. J. Adams.....	235,482	Dec. 14	526	152	18	1377
Tube-welding ball.....	T. J. Bray.....	235,501	Dec. 14	552	157	18	1381
Tube-welding machines. Apparatus for operating the mandrel-bars of.....	P. Patterson.....	235,801	Dec. 21	907	253	18	1448
Tubes. Forming plugs for welding.....	G. Matheson.....	227,635	May 18	632	181	17	1103
Tubes. Machine for corrugating metallic.....	S. Fox.....	225,586	Mar. 16	712	210	17	600
Tubes. Machine for handling.....	W. C. Allison.....	235,397	Dec. 14	415	117	18	1358
Tubes. Manufacture of.....	J. H. Seaman.....	228,947	June 15	965	262	17	1391
Tubes. Manufacture of flexible.....	J. Taylor.....	231,736	Aug. 31	1322	372	18	486
Tubing. Armor for flexible.....	H. Wakeman.....	223,262	Jan. 6	68	17	17	14
Tubing. Manufacture of sheet-metal.....	D. A. Ritchie.....	224,228	Feb. 3	290	84	17	251
Tubular fabrics. Machine for drying.....	S. A. and A. M. Case.....	231,269	Aug. 17	788	220 221	18	388
Tubular fabrics. Machine for rolling.....	S. A. and A. M. Case.....	231,270	Aug. 17	789	221	18	388
Tug-adjuster.....	E. J. Blood.....	231,646	Aug. 31	1219	342	18	470
Tug-adjuster.....	E. J. Blood.....	231,647	Aug. 31	1219	342	18	471
Tug attachment.....	S. Courtwright.....	227,738	May 18	761	214	17	1122
Tug-clip.....	A. McCovvie.....	232,532	Sept. 21	795	220	18	671
Tug. Hame.....	S. R. Copeland.....	227,490	May 11	468	134	17	1066
Tug. Hame.....	M. L. Haughton.....	223,910	Jan. 27	662	229	17	177
Tug. Hame.....	G. Hazlewood, Jr., J. Reagin, and W. S. Coleman.....	223,226	Jan. 6	20	5	17	6
Tug. Hame.....	J. E. Moeller.....	230,035	July 13	608	169	18	108
Tug. Hame.....	J. Skidmore, J. M. Liston, and O. Skidmore.....	226,561	Apr. 13	485	136	17	838
Tug hook and clevis.....	L. W. Burrell.....	235,991	Dec. 28	1162	322	18	1498
Tug. Shaft.....	O. W. Morley.....	236,063	Dec. 28	1247	344	18	1511
Tug. Spring-draft.....	G. W. King.....	230,554	July 27	1262	356	18	229

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. & G.	Vol.	Page.
Tugs. Spring-link for draft.....	J. F. Miller.....	223,370	Jan. 6	183	48	17	33
Turbine gate.....	J. H. Staples.....	225,495	Mar. 16	612	177	17	582
Turbine wheel.....	M. L. Hallenbeck.....	231,164	Aug. 17	664	187	18	368
Turn-table.....	C. A. Greenleaf.....	226,996	Apr. 27	1018	282	17	946
Turn-table.....	C. A. Greenleaf.....	234,668	Nov. 23	1068	287 } 288	18	1187
Turn-tables. Bearing for.....	A. R. Roberts and W. Lewis.....	235,297	Dec. 7	278	78	18	1327
Turning balusters. Machine for.....	P. M. Haas.....	226,912	Apr. 27	916	255	17	931
Turning flat-sided objects. Machine for.....	C. Preuss.....	236,079	Dec. 28	1261	348	18	1514
Tuyere.....	O. P. Clayton.....	233,602	Oct. 26	1019	284	18	932
Tuyere.....	H. Schlimme.....	232,550	Sept. 21	814	225	18	674
Tuyere.....	J. Stoll.....	235,391	Dec. 14	409	115	18	1357
Tweezers.....	A. W. Gifford.....	223,444	Jan. 13	292	77	17	65
Tweezers. Spring-.....	F. L. Ellis.....	227,680	May 18	685	195	17	1111
Twine-cutter.....	J. A. Crocker.....	228,516	June 8	428	116	17	1303
Twine-finishing machine.....	S. Ludlow.....	231,305	Nov. 9	585	159 } 160	18	1092
Twist drills and bits. Machine for straightening and gaging.....	T. Hooker.....	235,533	Dec. 14	588	168	18	1387
Twist-drills. Device for manufacturing.....	H. A. Williams.....	234,362	Nov. 9	648	176	18	1103
Twist-drills. Grinding.....	I. L. Penney.....	230,715	Aug. 3	138	41	18	269
Twist-drills. Machine for making.....	T. Hooker.....	235,534	Dec. 14	589	168	18	1388
Type and space holder.....	L. K. Johnson.....	230,784	Aug. 3	212	62	18	281
Type-bed. Revolving.....	J. W. Richards.....	228,680	June 8	617	166	17	1332
Type-bed. Revolving.....	S. D. Tucker.....	230,973	Aug. 10	441	126	18	326
Type-case.....	A. A. Low.....	233,264	Oct. 12	572	158	18	840
Type-case. Printer's.....	J. T. Edson.....	231,289	Aug. 17	809	227	18	391
Type-case. Printer's.....	L. D. Evans.....	229,687	July 6	201	56	18	38
Type-clamp.....	W. J. Adams.....	224,372	Feb. 10	463	132 } 133	17	299
Type-composing apparatus.....	A. Fraser.....	224,166	Feb. 3	220	63, 64	17	240
Type-composing machine.....	A. Fraser.....	226,297	Apr. 6	172	50	17	777
Type-distributing apparatus.....	A. Fraser.....	224,167	Feb. 3	222	64, 65	17	240
Type-distributing machine.....	J. North.....	226,623	Apr. 20	574	160 } 161 } 162	17	865
Type. Elastic-faced printing.....	E. D. Chamberlain.....	229,869	July 13	427	118	18	80
Type-form for electrotyping.....	B. Duncan and J. E. Leyden.....	223,584	Jan. 13	460	124	17	93
Type-rubbing machine.....	C. C. Webster.....	226,377	Apr. 6	251	74	17	792
Type setting and distributing machine.....	P. Dillon.....	225,468	Mar. 16	583	169 } 170	17	577
Type setting and distributing machine.....	J. Thorne.....	232,157	Sept. 14	330	93, 94	18	586
Type-sifter.....	G. Innis and W. R. Whitmore.....	228,997	June 22	1043	284	17	1411
Type-writer.....	J. W. Breckenridge.....	233,196	Oct. 12	493	135 } 136 } 137	18	826
Type-writers. Finger-guide for.....	A. M. Da Costa.....	229,386	June 29	1481	408	17	1480
Type-writing machine.....	A. M. Da Costa.....	232,692	Sept. 28	982	270	18	709
Type-writing machine.....	J. B. Hammond.....	224,088	Feb. 3	139	39	17	226
Type-writing machine.....	J. B. Hammond.....	224,183	Feb. 3	241	70, 71	17	243
Type-writing machine.....	J. B. Hammond.....	232,402	Sept. 21	640	177	18	645
Type-writing machine.....	C. McKinley.....	232,741	Sept. 28	1034	284	18	718
Type-writing machine.....	J. H. Phipps.....	229,458	June 29	1561	430 } 431	17	1492
Type-writing machine.....	F. Sholes.....	225,078	Mar. 2	121	34, 35	17	477
Type-writing machine.....	F. Wagner.....	232,913	Oct. 5	142	38	18	761
Type-writing-machine reel.....	W. K. Jenno.....	229,707	July 6	223	61	18	41
Type-writing machines. Paper-presser for.....	J. H. Pratt.....	232,757	Sept. 28	1054	289	18	721
Umbrella.....	A. H. Ege.....	229,685	July 6	199	55	18	37
Umbrella.....	D. Harris.....	228,894	June 15	908	248	17	1383
Umbrella.....	R. Ray.....	229,752	July 6	279	78	18	49
Umbrella.....	R. Ray.....	230,658	Aug. 3	77	21, 22	18	259
Umbrella and cane. Combined.....	W. H. Boles and G. B. Hall.....	234,165	Nov. 9	415	113	18	1062
Umbrella and cane. Combined.....	G. E. Dutton.....	231,660	Aug. 31	1232	347	18	473
Umbrella and parasol.....	S. Heiter.....	233,930	Nov. 2	116	32	18	1006
Umbrella and sunshade.....	F. M. C. Farradesche.....	235,943	Dec. 28	1104	305	18	1488
Umbrella-covers. Machine for cutting.....	G. F. Wächtershauser.....	225,443	Mar. 9	541	155	17	559
Umbrella-holder for vehicles.....	W. S. Thatcher.....	235,828	Dec. 21	937	262	18	1454
Umbrella-support.....	G. E. Barker.....	230,521	July 27	1224	345	18	222
Umbrella-support.....	J. H. Gordon.....	229,395	June 29	1490	410	17	1482
Umbrella-support.....	T. Mora.....	225,409	Mar. 9	507	146	17	554
Umbrella-support.....	J. Steiner.....	235,106	Dec. 7	49	15	18	1289
Umbrellas, &c. Fastening for.....	A. B. Shaw.....	231,452	Aug. 24	988	278	18	428
Umbrellas. Machine for forming and tempering paragon ribs for.....	C. H. Morgan.....	225,943	Mar. 30	1152	327	17	696
Under-garment.....	C. F. Devens.....	227,618	May 18	615	177	17	1101
Under-garment.....	T. B. Farrington.....	228,748	June 15	733	202	17	1359
Undershirt.....	A. J. Wheeler.....	225,249	Mar. 9	315	90	17	523
Underwaist.....	C. P. Clark.....	235,340	Dec. 14	352	96	18	1347
Unhairing-machine.....	W. Gerber.....	227,974	May 25	1049	299	17	1179
Universal joint for tripod-legs and other purposes.....	J. C. Githens.....	230,935	Aug. 10	398	115 } 116	18	319
Upholstering material.....	P. Amick.....	226,261	Apr. 6	129	36	17	769
Upholstering-spring.....	T. J. Corr.....	232,462	Sept. 21	717	199	18	657
Upholstery. Preparing moss for.....	C. M. Sartwell.....	231,106	Aug. 10	587		18	350
Uppers. Machine for stretching and notching.....	H. P. Fairfield.....	229,986	July 13	552	154	18	100
Urinal for invalids.....	J. Henry and J. R. Smith.....	231,487	Aug. 24	1023	287	18	434
Urinal-mat.....	E. J. Mallett, Jr.....	229,436	June 29	1535	422	17	1488
Urn. Coffee.....	C. B. Stilwell.....	225,731	Mar. 23	893	260	17	640
Urn for the reception of the ashes of the dead.....	E. C. Townsend.....	232,782	Sept. 28	1093	300	18	727
Uterine-supporter.....	C. F. Long.....	224,452	Feb. 10	553	159	17	314
Vacuum and air brake.....	J. F. Batchelor.....	231,258	Aug. 17	778	217	18	386
Vacuum. Apparatus for obtaining a.....	L. H. Ward.....	230,512	July 27	1216	342	18	221
Vacuum-brake apparatus.....	F. W. Eames.....	228,740	June 15	719	197 } 198	17	1357
Vacuum-brake apparatus.....	F. W. Eames.....	228,741	June 15	721	198	17	1357

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Vacuum-brake ejectors. Exhaust apparatus for.....	E. Longstreth.....	233,263	Oct. 12	572	158	18	840
Vacuum-brakes. Air-ejector for.....	F. W. Eames.....	228,742	June 15	723	199	17	1358
Vacuum-brakes. Drip-cock valve for.....	E. D. Eames.....	228,745	June 15	730	201	17	1359
Vacuum-brakes. Ejector for.....	F. W. Eames.....	228,743	June 15	725	200	17	1358
Vacuum-lubricator. Automatic.....	G. W. Baker.....	229,025	June 22	1068	{ 291 292 }	{ 17 }	1415
Valve:							
See Cut-off valve. Sewer-trap valve.							
Faucet-valve. Tap-valve.							
Pressure-regulator Vent-valve.							
valve. Waste-pipe valve.							
Pump-valve. Water-closet valve.							
Valve.....	N. Curtis.....	233,662	Oct. 23	1091	303	18	943
Valve.....	J. P. Hillard.....	234,573	Nov. 16	928	249	18	1158
Valve.....	J. W. Moore.....	229,902	July 13	458	127	18	85
Valve.....	T. F. Rowland.....	235,383	Dec. 14	401	112	18	1356
Valve.....	P. White.....	227,193	May 4	122	36	17	997
Valve.....	A. C. Wood.....	227,943	May 25	1003	288	17	1173
Valve and chest. Glass.....	R. P. Smith.....	227,067	Apr. 27	1109	305	17	960
Valve and cut-off. Steam balance.....	I. V. Warner.....	232,426	Sept. 21	674	186	18	650
Valve and muffler. Safety.....	G. H. Crosby.....	225,801	Mar. 23	982	282	17	654
Valve. Automatic relief.....	B. O. Tyler.....	228,493	June 8	402	110	17	1300
Valve. Balance slide.....	E. Haug.....	225,370	Mar. 9	463	135	17	547
Valve. Balance slide.....	E. Haug.....	232,271	Sept. 14	474	131	18	611
Valve. Balanced.....	W. Johnson.....	234,040	Nov. 2	266	72	18	1030
Valve. Balanced.....	E. D. Meier.....	228,210	June 1	55	17	17	1236
Valve. Balanced.....	G. W. Moore and J. W. Pertz.....	234,602	Nov. 16	974	259	18	1166
Valve. Balanced.....	W. P. Tatham.....	229,773	July 6	303	84, 85	18	53
Valve. Balanced puppet.....	H. Tilden and F. S. Guerber.....	229,341	June 29	1430	394	17	1474
Valve. Balanced slide.....	J. Fish.....	224,525	Feb. 17	641	184	17	339
Valve. Balanced slide.....	J. J. Le Beau.....	234,679	Nov. 23	1083	291	18	1189
Valve. Balanced steam.....	W. R. Gluyas.....	230,769	Aug. 3	197	57	18	278
Valve. Change.....	J. Fowler.....	228,051	May 25	1131	322	17	1192
Valve. Cylindrical.....	F. Winters, Jr.....	225,777	Mar. 16	817	239	17	618
Valve for engines. Distribution and expansion.....	R. Affeltranger.....	223,571	Jan. 27	817	218	17	170
Valve for oscillating engines.....	M. I. Garrison.....	235,864	Dec. 23	1005	278	18	1472
Valve for radiators. Steam.....	E. Hays.....	231,039	Aug. 10	514	144	18	337
Valve. Gate.....	E. Allt.....	233,180	Oct. 12	475	131	18	822
Valve. Gate.....	A. T. Irvine.....	232,893	Oct. 5	119	31	18	757
Valve. Gate.....	H. Mather.....	225,711	Mar. 23	870	255	17	637
Valve-gear.....	A. C. Rand.....	230,336	July 20	975	277	18	175
Valve-gear. Engine.....	P. Josseland.....	229,708	July 6	225	61	18	41
Valve-gear. Engine.....	L. Perkins and W. W. Harris.....	235,287	Dec. 7	269	75	18	1325
Valve-gear. Steam-engine.....	F. H. Ball.....	229,797	July 13	344	95, 96	18	67
Valve-gear. Steam-engine.....	H. R. Barnhurst.....	232,800	Oct. 5	4	2	18	739
Valve-gear. Steam-engine.....	J. Brierly.....	235,410	Dec. 14	432	121	18	1361
Valve-gear. Steam-engine.....	G. H. Corliss.....	235,744	Dec. 21	842	235	18	1436
Valve-gear. Steam-engine.....	W. Johnson.....	231,228	Aug. 17	746	209	18	380
Valve-gear. Steam-engine.....	W. Johnson.....	231,229	Aug. 17	747	209	18	380
Valve-gear. Steam-engine.....	C. P. Macowitzky.....	227,119	May 4	31	9	17	983
Valve-gear. Steam-engine.....	E. A. Marsh.....	236,052	Dec. 28	1232	340	18	1509
Valve-gear. Steam-engine.....	F. M. Stevens.....	232,774	Sept. 28	1075	{ 294 295 }	{ 18 }	724
Valve-gear. Steam-hammer.....	W. C. Barr.....	233,188	Oct. 12	483	133	18	825
Valve. Globe.....	W. A. Hart.....	225,369	Mar. 9	462	135	17	546
Valve. Globe.....	T. Holland.....	235,086	Dec. 7	29	9	18	1286
Valve. Globe and angle.....	W. S. Brazier.....	224,133	Feb. 3	185	53	17	234
Valve. Globe or check.....	J. S. Munger.....	223,749	Jan. 20	650	175	17	133
Valve-lifter. Automatic.....	H. Tuttle.....	227,600	May 11	593	169	17	1086
Valve-motion.....	W. Camerer.....	233,201	Oct. 12	498	137	18	827
Valve-motion and cut-off.....	E. O'Neill.....	227,918	May 25	977	280	17	1168
Valve. Relief.....	L. D. Shaw.....	230,828	Aug. 3	272	77	18	291
Valve. Rotary.....	F. M. Stevens.....	232,775	Sept. 28	1078	295	18	725
Valve. Safety.....	J. E. Crisp.....	235,748	Dec. 21	847	{ 236 237 }	{ 18 }	1437
Valve. Safety.....	N. Curtis.....	231,214	Aug. 17	730	205	18	378
Valve. Safety.....	W. D. Forbes.....	234,264	Nov. 9	539	147	18	1084
Valve. Safety.....	J. Griswold.....	232,708	Sept. 28	997	275	18	711
Valve. Safety.....	J. W. Melling.....	235,889	Dec. 28	1035	286	18	1476
Valve. Slide.....	E. D. Eames.....	233,489	Oct. 19	867	{ 239 240 }	{ 18 }	896
Valve. Slide.....	C. H. Hawkins.....	227,165	May 4	91	25	17	993
Valve. Steam.....	C. H. Burton.....	224,072	Feb. 3	121	35	17	223
Valve. Steam.....	O. S. Emerson.....	233,491	Oct. 19	869	240	18	896
Valve. Steam.....	J. D. Wilson.....	226,218	Apr. 6	82	21	17	760
Valve. Steam-actuated.....	W. J. Boland.....	234,649	Nov. 23	1042	280	18	1183
Valve. Steam-engine.....	T. E. Barrow.....	232,230	Sept. 14	421	117	18	602
Valve. Steam-engine.....	F. W. Gordon.....	233,233	Oct. 12	536	149	18	834
Valve. Steam-engine balanced.....	W. J. Innis.....	233,351	Oct. 19	706	193	18	869
Valve. Steam-engine slide.....	G. W. Anderson.....	223,693	Jan. 20	594	159	17	123
Valve. Steam-engine slide.....	O. J. Byrnd.....	226,713	Apr. 20	674	{ 187 188 }	{ 17 }	880
Valve. Steam-engine slide.....	R. H. Carter.....	226,715	Apr. 20	676	188	17	881
Valve. Steam slide.....	H. R. Campfield.....	231,651	Aug. 31	1223	343	18	471
Valve-stem for cocks and valves.....	E. G. Felthousen.....	228,991	June 22	1038	282	17	1410
Valve. Stop.....	G. W. Blake.....	224,381	Feb. 10	472	135	17	300
Valve. Stop.....	J. C. and J. Lorenz.....	233,525	Oct. 19	910	250	18	903
Valve. Stop.....	G. H. Perkins, W. S. and E. B. Clark.....	226,544	Apr. 13	466	131	17	835
Valve. Stop and check.....	W. S. Cooper.....	232,941	Oct. 5	173	46	18	766
Valve. Straight-way.....	E. W. McCormick.....	225,229	Mar. 9	294	84	17	519
Valves. Electrical apparatus for operating.....	C. F. Pike.....	228,558	June 8	481	129	17	1312
Valves. Electrical device for closing stop.....	J. Tate.....	231,665	Aug. 31	1477	414	18	511
Valves. Gear for automatic action of throttle and slide.....	C. B. Cook.....	225,799	Mar. 23	978	281	17	654
Valves. Globe and other.....	J. G. Willard.....	233,902	Nov. 2	86	22	18	1001

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Drig.	Vol.	Page.
Valves. Machine for grinding.	T. B. Belfield	235,495	Dec. 14	539	155	18	1379
Valves. Operating slide.	J. Robb, Jr.	235,023	Nov. 30	1501	404	18	1265
Vapor and other engines	H. Cottrell	230,921	Aug. 10	384	111	18	317
Vapor-burner	W. G. Amor	231,887	Sept. 7	10	2	18	526
Vapor-burner	G. W. Billings	229,799	July 13	346	96	18	67
Vapor-burner	W. P. Butler	234,238	Nov. 9	506	139	18	1079
Vapor-burner	J. E. Denevan	235,673	Dec. 21	756	215	18	1422
Vapor-burner	P. Hickisch	231,224	Aug. 17	743	208	18	380
Vapor-burner	F. A. Lyman	225,067	Mar. 2	109	31	17	475
Vapor-burner	F. A. Lyman	227,695	May 18	705	200	17	1114
Vapor-burner	J. A. Marsh	232,139	Sept. 14	311	87	18	583
Vapor-burner	H. L. McAvoy	231,075	Aug. 10	548	155	18	343
Vapor-burner	W. R. Park	229,454	June 29	1556	428	17	1491
Vapor-burner	P. Schneider and H. Trenkamp	231,973	Sept. 7	127	32	18	544
Vapor-burner	W. H. Smith	230,584	July 27	1295	365	18	235
Vapor-burner	J. B. Wallace and Z. Davis	223,966	Jan. 27	929	248	17	187
Vapor-burner	C. and J. Whittingham	235,600	Dec. 14	667	189	18	1400
Vapor-burner	J. S. Wood	226,816	Apr. 20	784	218	17	898
Vapor-burner	C. Woodhull	224,371	Feb. 10	462	132	17	299
Vapor-condensing and air-warming apparatus.	J. Creager and A. Evans	231,766	Aug. 31	1353	361	18	491
Vapor-engine boiler and condenser.	E. J. Molera and J. C. Cebrian	230,323	July 20	957	272	18	171
Vapor-motor	E. L. Brady	224,766	Feb. 24	940	268	17	404
Varnish. Asphalt	J. Brace	228,029	May 25	1108		17	1188
Varnish, lacquer, &c. Apparatus for boiling	J. Werner	225,032	Mar. 2	64	18	17	467
Vase and flower-pot suspender	C. B. Pettengill	225,020	Mar. 2	45	13	17	464
Vat:							
See Cheese-vat.	Hog and cattle vat.						
Fermenting-vat.							
Vault-light and skylight	J. M. Harr	227,247	May 4	187	54	17	1008
Vault or tomb. Burial	W. F. Groves	226,743	Apr. 20	706	196	17	885
Vegetable and meat slicer	L. Hornung	224,016	Feb. 3	52	16	17	212
Vegetable-crusher	H. Adams	223,689	Jan. 20	589	158	17	123
Vegetable-cutter	H. Beerstler	225,681	Mar. 23	836	243	17	631
Vegetable-cutter	J. De Frain	225,114	Mar. 2	158	45	17	483
Vegetable-cutter	E. A. Rice	233,700	Oct. 26	1131	315	18	950
Vegetable cutting and grating machine	W. Mild	226,096	Mar. 30	1337	377	17	724
Vegetable products for use and transportation. Preparing waste	W. H. Smith	223,885	Nov. 2	70		18	999
Vegetable-slicer	P. Berzine	224,631	Feb. 17	768	217	17	359
Vegetables. Desiccating	H. Halverson	230,004	July 13	576		18	103
Vehicle	C. Behlen, Jr.	235,494	Dec. 14	538	155	18	1379
Vehicle	W. J. Dawson	233,460	Oct. 19	857	236	18	894
Vehicle baggage attachment	E. J. Osborne	223,378	Jan. 6	192	51	17	35
Vehicle baggage attachment	E. J. Osborne	228,924	June 15	940	256	17	1388
Vehicle-bow	L. Emerson and J. W. S. Fisher	232,117	Sept. 14	289	81	18	579
Vehicle-bow trimming	H. Higgin	234,574	Nov. 16	929	249	18	1158
Vehicle-brake	J. H. Coffman	227,348	May 11	311	90	17	1040
Vehicle-brake	E. W. Pritchett	227,296	May 4	232	68	17	1016
Vehicle-brake	J. H. Reed	232,546	Sept. 21	809	224	18	673
Vehicle-brake	F. J. Wenker	223,827	Jan. 27	762	203	17	161
Vehicle-dash	A. Z. Boda	229,582	July 6	87	23	18	22
Vehicle-dash	A. Z. Boda	229,583	July 6	88	24	18	22
Vehicle dash-board foot	G. W. F. Thompson and F. A. Hayward	226,941	Apr. 27	953	264	17	936
Vehicle-dash fastening attachment	G. M. Peters	225,019	Mar. 2	42	12, 13	17	463
Vehicle dash-frame	G. M. Peters	224,792	Feb. 24	978	278	17	409
Vehicle dash-rail	A. Z. Boda	226,025	Mar. 30	1258	354	17	712
Vehicle foot-rail	W. F. Black	225,097	Mar. 2	140	40	17	480
Vehicle jacking-wheel	E. Schuchardt	235,302	Dec. 7	282	80	18	1328
Vehicle jump-seat	C. K. Mellinger and J. W. Anderson	231,438	Aug. 24	972	274	18	425
Vehicle. Passenger	C. M. Murch	230,041	July 13	613	170	18	109
Vehicle-platform	W. Fershaw	223,497	Jan. 13	350	95	17	76
Vehicle platform-gear	C. R. Wilson	234,700	Nov. 23	1103	296 } 297	18	1193
Vehicle. Rowing	C. E. Tripler and W. H. Roff	230,838	Aug. 3	282	81	18	293
Vehicle running-gear	A. H. Crawford	227,151	May 4	78	21	17	990
Vehicle running-gear	A. H. Crawford	229,237	June 29	1295	356	17	1456
Vehicle running-gear	P. Herdic	226,748	Apr. 20	711	198	17	886
Vehicle running-gear	D. W. Inman	223,515	Jan. 13	378	100	17	79
Vehicle running-gear	T. F. Krajewski	235,785	Dec. 21	886	248	18	1444
Vehicle running-gear	C. M. Murch	229,329	June 29	1415	388	17	1471
Vehicle sand-band	I. F. Burdick	224,641	Feb. 17	780	221	17	361
Vehicle sand-band	J. Hitchcock	234,572	Nov. 16	927	248	18	1157
Vehicle-seat	J. H. Babbitt	226,956	Apr. 27	968	269	17	939
Vehicle-seat	G. E. Eastman	232,247	Sept. 14	447	123	18	606
Vehicle-seat	G. W. Merrill	227,913	May 25	972	278	17	1168
Vehicle-seat spring	E. R. Merrill	229,899	July 13	455	126	18	84
Vehicle-seats. Rail-fastener for	J. Law	228,083	May 25	1170	333	17	1199
Vehicle shifting seat	J. A. Chapman	227,612	May 18	610	175	17	1100
Vehicle. Side-bar	J. E. De Grush and J. Wreath	227,499	May 11	476	136	17	1067
Vehicle. Side-bar	E. Ford and J. T. Fellows	223,496	Jan. 13	357	95	17	76
Vehicle. Side-spring	D. A. Sprague	233,293	Oct. 12	612	169	18	847
Vehicle. Spring	W. M. Harris	228,462	June 8	356	97	17	1294
Vehicle. Spring	W. B. Thomas	226,371	Apr. 6	247	72	17	791
Vehicle. Spring	G. White	232,794	Sept. 28	1105	303	18	729
Vehicle-spring	G. Aschenauer	227,090	May 4	1	1	17	979
Vehicle-spring	S. A. Bailey	224,627	Feb. 17	761	216	17	359
Vehicle-spring	W. B. Bennett	226,593	Apr. 20	541	151	17	859
Vehicle-spring	C. M. Blydenburgh	225,965	Mar. 30	1186	337	17	701
Vehicle-spring	P. Campbell	231,996	Sept. 7	148	39	18	548
Vehicle-spring	W. Cole	234,964	Nov. 30	1430	385	18	1253
Vehicle-spring	G. Custer	228,983	June 22	1025	279	17	1409
Vehicle-spring	G. Delker	234,254	Nov. 9	523	144	18	1082
Vehicle-spring	A. W. Fielder and E. Kelly	232,019	Sept. 7	173	46	18	552



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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Vehicle-spring	F. J. Flowers	227,233	May 4	175	51	17	1006
Vehicle-spring	P. C. Freese	227,512	May 11	491	141	17	1070
Vehicle-spring	G. N. French	225,925	Mar. 30	1130	322	17	692
Vehicle-spring	W. P. Hansell	230,272	July 20	903	257	18	163
Vehicle-spring	G. E. Harris	234,403	Nov. 16	724	195	18	1122
Vehicle-spring	W. Henry	224,906	Feb. 24	1102	315	17	430
Vehicle-spring	A. D. Hickok	229,609	July 6	116	31	18	26
Vehicle-spring	G. Hnbert	225,384	Mar. 9	477	139	17	549
Vehicle-spring	H. M. Keith	228,360	June 1	225	64	17	1263
Vehicle-spring	E. C. Leferts	229,261	June 29	1322	364	17	1460
Vehicle-spring	T. J. Magner and C. L. Thomas	231,070	Aug. 10	545	154	18	342
Vehicle-spring	J. M. Miller	227,915	May 25	974	279	17	1168
Vehicle-spring	J. P. Morrow and H. F. Bush	229,650	July 6	136	38	18	29
Vehicle-spring	C. M. Murch	226,536	Apr. 13	458	129	17	834
Vehicle-spring	N. Nilson	226,540	Apr. 13	462	130	17	835
Vehicle-spring	R. P. Palmer	230,332	July 20	971	275	18	174
Vehicle-spring	L. Pulliam	226,929	Apr. 27	941	261	17	934
Vehicle-spring	J. N. Rice	223,542	Jan. 13	409	109	17	85
Vehicle-spring	W. B. Richmond	226,882	Apr. 27	885	246	17	925
Vehicle-spring	L. Rodenhansen	236,090	Dec. 28	1272	351	18	1516
Vehicle-spring	F. Schelp, Jr	235,301	Dec. 7	281	79	18	1328
Vehicle-spring	F. J. Springer	227,661	May 18	664	188 189	17	1108
Vehicle-spring	A. Tetn	232,658	Sept. 28	941	259	18	702
Vehicle-spring	J. B. Whitcomb	225,087	Mar. 2	130	37	17	479
Vehicle-spring	J. D. Whitney	223,460	Jan. 13	312	83	17	68
Vehicle-spring	M. Woodhull	224,859	Feb. 24	1049	299	17	421
Vehicle spring-bar	G. Newton	220,415	Apr. 13	306	88	17	811
Vehicle-spring brace	C. A. E. Simpson	232,079	Sept. 7	243	67	18	564
Vehicle spring-seat	H. C. and S. L. Neer	235,276	Dec. 7	258	72	18	1324
Vehicle spring-seat	J. O'Connor	233,689	Oct. 26	1118	312	18	948
Vehicle spring-seat	A. B. Smith	235,819	Dec. 21	928	259	18	1452
Vehicle spring-seat	W. Snow	229,923	July 13	486	135	18	89
Vehicle spring-seat	M. J. Zeimet and H. C. Brand	232,098	Sept. 7	262	72	18	567
Vehicle-top	G. J. Peltier	228,110	May 25	1196	341	17	1204
Vehicle-top	E. P. Stedman	233,889	Nov. 2	74	19	18	999
Vehicle-top. Adjustable	P. J. Ayres	235,119	Dec. 7	66	20	18	1292
Vehicle-top joint	J. A. Nisonger	232,748	Sept. 28	1043	286	18	719
Vehicle-wheel	O. J. Baldwin	223,307	Jan. 6	121	31	17	22
Vehicle-wheel	C. W. Ball	230,990	Aug. 10	462	132	18	329
Vehicle-wheel	J. F. Darby	228,805	June 15	811	222	17	1369
Vehicle-wheel	G. W. Dudley and W. J. Jones	233,219	Oct. 12	519	144	18	831
Vehicle-wheel	S. H. French and W. J. Maltby	233,498	Oct. 19	875	242	18	897
Vehicle-wheel	G. W. Kraft, Jr.	231,333	Aug. 17	855	240	18	399
Vehicle-wheel	J. Ladner	234,589	Nov. 16	963	255	18	1163
Vehicle-wheel	J. M. Nelson	235,167	Dec. 7	129	37	18	1303
Vehicle-wheel	W. Newlin	234,196	Nov. 9	457	124	18	1070
Vehicle-wheel	J. A. Pesant	235,802	Dec. 21	909	253	18	1448
Vehicle-wheel	H. F. Smith	234,817	Nov. 23	1246	335	18	1216
Vehicle-wheel	C. H. Triphagen	234,506	Nov. 16	839	225	18	1143
Vehicle-wheel	J. C. Turnbull	227,458	May 11	430	125	17	1059
Vehicle-wheel sand-band	M. Potter	224,795	Feb. 24	983	278	17	410
Vehicle-wheel sand-guard	C. W. Ammerman	226,587	Apr. 20	535	150	17	857
Vehicle-wheels. Apparatus for washing and oiling	T. A. Miller	227,121	May 4	34	10	17	984
Velocipede	W. Albrecht	229,655	July 6	163	45	18	33
Velocipede	A. M. Allen	223,691	Jan. 20	591	159	17	123
Velocipede	J. Arkins	235,399	Dec. 14	419	117	18	1359
Velocipede	K. Beecker	233,396	Oct. 19	761	209	18	879
Velocipede	H. B. Burin	234,954	Nov. 30	1419	389	18	1251
Velocipede	D. H. Collins, J. W. Tuttle, and H. C. Collins	230,176	July 20	784	219	18	145
Velocipede	P. L. Davis	224,153	Feb. 3	205	59	17	237
Velocipede	J. A. Fancher	227,746	May 18	769	217	17	1124
Velocipede	J. S. Gill, Jr., and G. B. Alexander	227,685	May 18	690	196	17	1112
Velocipede	D. A. Gunn	233,671	Oct. 26	1100	306	18	945
Velocipede	C. Hammelmann	225,010	Mar. 2	32	9, 10	17	462
Velocipede	L. M. Hosea	228,996	June 22	1042	284	17	1411
Velocipede	A. C. Johnson	232,825	Oct. 5	38	10	18	744
Velocipede	F. Langmaak and P. Streiff	228,908	June 15	924	251	17	1385
Velocipede	G. Lowden	233,682	Oct. 26	1110	309	18	947
Velocipede	O. J. McGann	230,428	July 27	1121	315	18	205
Velocipede	T. W. Moran	235,551	Dec. 14	611	174	18	1391
Velocipede	R. Newton	231,347	Aug. 17	870	245	18	401
Velocipede	W. Overstreet	225,760	Mar. 23	932	270	17	646
Velocipede	W. Palmer	233,691	Oct. 26	1121	312 313	18	948
Velocipede	N. S. C. Perkins	223,241	Jan. 6	39	9	17	9
Velocipede	N. S. C. Perkins	231,009	Aug. 24	1163	325 326	18	455
Velocipede	G. W. Pressey	233,640	Oct. 26	1064	226	18	939
Velocipede	G. W. Pressey	234,722	Nov. 23	1127	304	18	1196
Velocipede	B. Rieder	234,064	Nov. 2	290	80	18	1034
Velocipede	H. Schlüter	231,622	Aug. 24	1176	329	18	457
Velocipede	J. S. Smith	230,609	Aug. 3	89	26	18	261
Velocipede	R. W. Teese	225,771	Mar. 23	943	273	17	643
Velocipede	C. M. Trautmann	229,562	July 6	66	19	18	19
Velocipede	C. M. Trautmann	232,620	Sept. 28	896	247	18	694
Velocipede	C. E. Tripler and W. H. Roff	232,783	Sept. 28	1094	300	18	727
Velocipede	A. Vick	228,496	June 8	405	111	17	1300
Velocipede	A. Vreeland	225,310	Mar. 9	397	115	17	535
Velocipede	G. E. Whitmore	226,578	Apr. 13	499	140	17	840
Velocipede	G. N. Winslow	235,925	Dec. 28	1086	300	18	1485
Velocipede	C. Wittenberg	235,720	Dec. 21	815	229	18	1432
Velocipede	T. B. Zeller	233,903	Nov. 2	86	22	18	1001

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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Velocipede-horse	A. Stover	230,722	Aug. 3	145	43	18	270
Velocipede. Marine	M. Coloney	233,919	Nov. 2	104	27, 28	18	1004
Velocipede. Railway	W. H. Fox	225,585	Mar. 16	711	209	17	600
Velocipede. Railway	E. K. Hill, E. F. Tolman, and A. H. Howland	229,252	June 29	1315	362	17	1459
Veneering. Ornamental	F. Koskul	233,775	Oct. 26	1211	-----	18	964
Vent. Barrel	A. Bottger	228,440	June 8	331	91	17	1290
Vent for beer-barrels	O. Zwietusch	228,292	June 1	161	44	17	1252
Vent-plug for barrels, &c.	A. Zoller	232,797	Sept. 23	1108	303	18	730
Vent to vessels holding liquids	J. A. Wright	228,159	May 25	1250	355	17	1212
Vent-valve for barrels	C. Shabley	223,396	Jan. 6	210	56	17	39
Venting sealed cans	J. Wolff	229,789	July 6	322	-----	18	55
Ventilating and damper attachment	W. H. Allen	231,139	Aug. 17	631	179	18	363
Ventilating apparatus	J. H. Doland	235,217	Dec. 7	191	52	18	1312
Ventilating apparatus	D. Groesbeck	232,488	Sept. 21	747	207	18	662
Ventilating apparatus	W. F. Thiers	223,777	Jan. 20	682	184	17	138
Ventilating attachment for funnels	G. M. Wickliffe	235,718	Dec. 21	813	228	18	1432
Ventilator:							
See Car-ventilator.	Hat and cap ventilator.						
Chimney-ventilator.	House-ventilator.						
Hat-ventilator.	Wall-ventilator.						
Ventilator	J. W. Mark	230,952	Aug. 10	416	120	18	322
Ventilator	W. S. Sayers	227,586	May 11	572	164	17	1083
Ventilator and chimney. Combined	A. T. Wheeler	226,215	Apr. 6	79	20	17	760
Vermin trap or insulator	E. P. Denton	223,321	Jan. 6	136	34	17	25
Vessel. Armored	N. B. Clark	231,899	Sept. 7	25	6	18	528
Vessel. Covered	G. B. Thompson	228,696	June 8	631	171	17	1334
Vessel. Wooden	H. K. Carter	234,752	Nov. 23	1161	313	18	1202
Vessels. Apparatus for unloading coal, &c., from	M. Cooney and W. Swanston	228,317	June 1	185	52	17	1257
Vessels. Construction of freighting	F. Imhorst	224,691	Feb. 17	833	236 237	17	371
Vessels. Construction of steam	A. Olsen	226,542	Apr. 13	464	131	17	835
Vessels. Folding keel for	E. R. Dodge	228,450	June 8	342	94	17	1291
Vessels. Machine for unloading	F. Imhorst	223,350	Jan. 6	165	43	17	30
Vial	H. E. Dennett	227,351	May 11	315	91	17	1040
Vinegar. Apparatus for manufacturing	V. Michaelis	227,564	May 11	546	157	17	1079
Vinegar-generator	S. J. Clark	235,996	Dec. 23	1195	324	18	1498
Violin	T. Howells	223,916	Jan. 27	868	231	17	178
Violin	E. Marx	224,834	Feb. 24	1020	290	17	416
Violin	T. Peaker	231,084	Aug. 10	563	159	18	346
Violin case or box	D. Hess	232,182	Sept. 14	368	102	18	592
Vise	J. M. Black	227,210	May 4	146	42	17	1001
Vise	C. Fisher	226,841	Apr. 27	828	231	17	916
Vise	E. C. Hall and C. D. Smith	232,959	Oct. 5	197	52	18	770
Vise	J. F. Hall	230,005	July 13	578	160	18	103
Vise	G. A. Hickcox	232,892	Oct. 5	118	31	18	757
Vise	W. S. Lord	232,282	Sept. 14	488	136	18	613
Vise	N. E. Lovejoy	229,432	June 29	1531	422	17	1488
Vise	W. Riley	227,582	May 11	568	162	17	1082
Vise and clamp	J. Brady	228,245	June 1	101	30	17	1243
Vise and drill. Combined	C. Brunner	226,709	Apr. 20	670	187	17	880
Vise and shears. Combined	E. Brown	230,400	July 27	1086	305	18	199
Vise. Circular saw	J. L. Glover	224,676	Feb. 17	820	232	17	369
Vise for bench-vises. Pipe	F. I. Maule	226,410	Apr. 13	302	87	17	810
Vise for holding saws	J. Mollet	224,211	Feb. 3	272	79	17	249
Vise-jaws	B. F. Stephens	235,177	Dec. 7	139	40	18	1305
Vises. Taper jaw for	B. F. Stephens	234,930	Nov. 30	1385	373	18	1245
Votes. Register for counting	R. S. Conover	228,610	June 8	544	145	17	1320
Vulcanite-fiber cutter	W. C. Coddington	233,205	Oct. 12	502	138	18	828
Vulcanization of water-proof fabrics	W. Abbott	226,259	Apr. 6	128	-----	17	769
Vulcanized plastic compound	A. B. and C. Jenkins	232,974	Oct. 5	217	-----	18	774
Waffle-iron	D. H. Nation	232,055	Sept. 7	216	59	18	560
Waffle-iron	S. Selden and M. Griswold, Jr.	229,280	June 29	1347	370	17	1463
Wagon-bodies. Crate-cover for	E. J. Malone	236,050	Dec. 23	1230	339	18	1508
Wagon-bodies. Device for elevating	D. Booker	226,024	Mar. 30	1258	354	17	712
Wagon-body	N. Faught	224,889	Feb. 24	1085	311	17	427
Wagon-body	O. Schimansky	230,578	July 27	1286	362	18	233
Wagon-body corner-iron	C. Comstock	234,853	Nov. 30	1296	349	18	1231
Wagon-body corner-iron	J. Gorham	225,052	Mar. 2	94	25	17	472
Wagon-body elevator	W. A. Pipher	232,414	Sept. 21	655	181	18	647
Wagon-body facing-iron	J. Jensen	231,050	Aug. 10	526	147	18	339
Wagon-body lifter	J. P. Morris	231,495	Aug. 24	1034	290	18	435
Wagon-body strap	S. A. Nolen	232,841	Oct. 5	57	16	18	748
Wagon-bow socket	R. P. Williams	236,133	Dec. 23	1336	366	18	1526
Wagon-box	S. C. Brown	233,655	Oct. 26	1083	301	18	942
Wagon-brake	J. Carpenter	227,215	May 4	152	44	17	1002
Wagon-brake	W. B. Hamilton	234,276	Nov. 9	554	151	18	1087
Wagon-brake	W. B. Jackson	230,782	Aug. 3	210	61	18	281
Wagon-brake	W. B. Jackson	235,773	Dec. 21	873	244	18	1442
Wagon-brake	P. Jarvis	225,139	Mar. 2	183	51	17	487
Wagon-brake	J. A. Knetzer, Sr.	224,444	Feb. 10	545	157	17	312
Wagon-brake	W. C. Kohler	223,232	Jan. 6	30	7	17	7
Wagon-brake	F. D. Ladenberger and W. V. Hazelton	230,027	July 13	600	166	18	107
Wagon-brake	J. Real	236,082	Dec. 23	1265	349	18	1515
Wagon-brake	J. Riddlesberger	228,934	June 15	951	259	17	1389
Wagon-brake	J. F. Talley and J. M. Wadlington	225,891	Mar. 23	1073	307	17	670
Wagon-brake	W. L. Whitman and J. D. Igon	234,637	Nov. 16	1015	271	18	1172
Wagon-brake	A. L. Withers, Jr.	227,194	May 4	124	36	17	998
Wagon-brake	A. L. Withers, Jr.	235,719	Dec. 21	814	229	18	1432
Wagon-brake	H. M. Woodford	229,575	July 6	81	22	18	21
Wagon-brake. Automatic	W. H. Johnson	227,014	Apr. 27	1037	288	17	950
Wagon-brake. Automatic	W. P. Wood	223,791	Jan. 20	698	188	17	140

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
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Wagon-brake lever.....	A. C. Fish.....	229,689	July 6	203	56	18	38
Wagon-brake lever.....	C. H. Ogborn.....	232,363	Sept. 21	596	164	18	637
Wagon-brake lever.....	E. S. Plimpton.....	230,334	July 20	974	276	18	174
Wagon-brake lever.....	J. B. Sexton.....	237,847	May 18	874	249	17	1141
Wagon-brake shoe.....	C. A. Skene.....	234,435	Nov. 16	760	204	18	1130
Wagon. Buckboard.....	W. Sanford.....	232,765	Sept. 28	1063	291	18	722
Wagon corner-iron.....	O. Vanorman.....	230,842	Aug. 3	287	82	18	294
Wagon. Dumping.....	H. C. Chaplin.....	230,527	July 27	1231	347	18	223
Wagon. Dumping.....	J. S. Linthicum.....	228,655	June 8	595	159	17	1329
Wagon. Dumping.....	L. Rodenhausen.....	223,953	Jan. 27	910	243	17	184
Wagon. Dumping.....	J. Townsend.....	233,049	Oct. 5	306	85	18	788
Wagon. Dumping.....	G. B. Wiestling.....	227,337	May 4	280	82	17	1024
Wagon. Farm.....	R. J. Barcus.....	224,860	Feb. 24	1050	299	17	421
Wagon for gaseous-liquid fountains.....	J. Collins.....	231,539	Aug. 24	1083	304	18	442
Wagon for gaseous-liquid fountains.....	J. Collins.....	232,002	Sept. 7	157	40	18	549
Wagon-hound-brace holder.....	L. J. M. Mortenson.....	236,064	Dec. 28	1247	344	18	1511
Wagon-jack.....	J. Charles.....	229,380	June 29	1475	406	17	1479
Wagon-jack.....	G. Lehman.....	233,779	Oct. 26	1215	338	18	965
Wagon-jack.....	L. Miller.....	224,461	Feb. 10	561	161	17	315
Wagon-jack.....	P. Smith.....	232,855	Oct. 5	70	20	18	750
Wagon lifting-bar.....	J. S. Letourneau.....	227,274	May 4	211	62	17	1012
Wagon-lock.....	G. F. Burton.....	224,070	Feb. 3	118	34	17	223
Wagon-lock.....	G. F. Burton.....	224,071	Feb. 3	119	35	17	223
Wagon-lock.....	J. L. Guinn.....	224,681	Feb. 17	825	234	17	370
Wagon-lock.....	D. A. Sprague and S. Perry.....	229,560	July 6	63	17, 18	18	18
Wagon. Platform.....	R. C. Morse.....	230,563	July 27	1270	358	18	230
Wagon-platform gearing.....	A. S. Wakely.....	233,648	Oct. 26	1075	299	18	941
Wagon-rack.....	W. E. Day.....	233,838	Nov. 2	13	4	18	989
Wagon rack. Farm.....	P. Butterfuss.....	231,003	Aug. 10	474	135	18	330
Wagon-reach coupling.....	A. Heikes.....	224,531	Feb. 17	646	186	17	340
Wagon. Road.....	C. W. Saladee.....	228,397	June 1	266	74	17	1270
Wagon. Road.....	C. W. Saladee.....	233,437	Oct. 19	809	223	18	887
Wagon. Road.....	C. W. Saladee.....	233,438	Oct. 19	811	224	18	887
Wagon. Rowing.....	C. L. French.....	224,415	Feb. 10	509	146	17	306
Wagon running-gear.....	C. E. Adamson.....	229,793	July 13	341	95	18	67
Wagon running-gear.....	G. W. Burr.....	228,311	June 1	179	50	17	1255
Wagon running-gear.....	W. Carr.....	225,687	Mar. 23	841	245	17	632
Wagon running-gear.....	R. W. and D. Davis.....	231,545	Aug. 24	1090	306	18	443
Wagon running-gear.....	J. J. Du Bois.....	223,897	Jan. 27	842	225	17	174
Wagon running-gear.....	J. C. Fowler.....	229,994	July 13	566	157	18	101
Wagon running-gear.....	A. Hampe.....	231,562	Aug. 24	1110	{ 311 312 }	18	446
Wagon running-gear.....	C. Hotz.....	229,132	June 22	1186	325	17	1432
Wagon running-gear.....	D. Lyman.....	230,300	July 20	933	265	18	168
Wagon running-gear.....	R. C. Parvin.....	231,082	Aug. 10	561	158	18	345
Wagon running-gear.....	T. K. Sawyers.....	225,876	Mar. 23	1060	303	17	668
Wagon-seat.....	L. Lowden.....	226,179	Apr. 6	38	10	17	752
Wagon-seat.....	G. W. Manlove, Jr.....	226,765	Apr. 20	729	203	17	889
Wagon-seat.....	J. H. Rhamy.....	225,420	Mar. 9	518	149	17	556
Wagon-seat.....	M. Tompkins.....	228,491	June 8	401	110	17	1300
Wagon-seat corner-iron.....	R. A. Morse.....	223,294	Jan. 6	110	27	17	20
Wagon-seat fastener.....	G. F. Wilson.....	228,151	May 25	1241	352	17	1210
Wagon-seat support.....	H. M. Jacobs.....	233,933	Nov. 2	118	33	18	1006
Wagon. Side-bar.....	J. Frison.....	226,298	Apr. 6	173	50	17	777
Wagon. Side-bar.....	R. A. Morse.....	229,167	June 22	1220	334	17	1437
Wagon. Side-bar.....	C. W. Saladee.....	226,424	Apr. 13	320	92	17	813
Wagon. Side-bar.....	T. C. Sebring.....	230,350	July 20	992	281	18	178
Wagon. Side-spring.....	W. Wright.....	225,779	Mar. 23	954	275	17	650
Wagon. Spring.....	M. Conrad.....	233,075	Oct. 12	344	95	18	801
Wagon-spring.....	W. G. Hughes.....	230,281	July 20	913	260	18	165
Wagon. Steam road.....	J. W. Clardy.....	227,096	May 4	6	2	17	979
Wagon-standard.....	J. Paulu.....	234,889	Nov. 30	1338	360	18	1238
Wagon-wheels. Machine for repairing.....	R. T. Hunn.....	235,055	Nov. 30	1538	414	18	1271
Wagons and dumping them. Device for unloading.....	P. H. Samnell.....	226,425	Apr. 13	321	92, 93	17	813
Wagons. Combined shoveling-board and end-gate for.....	G. W. Holly.....	232,969	Oct. 5	211	57	18	773
Waiter.....	H. Berry.....	224,632	Feb. 17	769	218	17	359
Wall-paper exhibitor.....	W. Hurd and S. B. Brown.....	230,780	Aug. 3	208	60, 61	18	280
Wall-paper. Machine for bronzing.....	J. Schneider.....	233,167	Oct. 12	458	126	18	820
Wall. Submarine and surface.....	D. A. Dyer.....	231,957	Sept. 7	106	26	18	541
Wall ventilator. Side.....	W. H. Smith.....	235,303	Dec. 7	223	80	18	1328
Walls. Coating and finishing.....	J. W. O'Bryan.....	230,043	July 13	616	171	18	109
Walls. Elastic lining for.....	T. Boyd.....	230,228	July 20	843	238	18	154
Wardrobe.....	O. C. Morse.....	228,919	June 15	936	{ 254 255 }	17	1387
Wardrobe and trunk. Combined.....	W. H. Haman.....	227,428	May 11	399	116	17	1053
Wardrobe, bedstead, and table. Combined.....	E. J. Green.....	224,679	Feb. 17	823	233	17	370
Wardrobe for trunks. Portable.....	I. Hogeland.....	226,855	Apr. 27	848	235	17	920
Warming and ventilating.....	A. C. Rideout.....	229,842	July 13	399	110	18	75
Wash-bench.....	A. Severson.....	224,799	Feb. 24	987	279	17	411
Wash-board.....	C. T. Brandon.....	229,027	June 22	1071	292	17	1415
Wash-board.....	J. B. Campbell and J. Lindsay.....	231,005	Aug. 10	477	135	18	331
Wash-board.....	H. Dumphy.....	234,007	Nov. 2	231	62	18	1023
Wash-board.....	J. M. Gorham.....	223,338	Jan. 6	153	39	17	28
Wash-board.....	B. R. Jenkins.....	224,828	Feb. 24	1014	287	17	415
Wash-board.....	E. A. Kitzmiller.....	223,677	Jan. 20	577	155	17	121
Wash-board.....	G. H. Millen.....	223,600	Jan. 13	477	129	17	96
Wash-board.....	M. M. Tucker.....	223,458	Jan. 13	311	83	17	68
Wash-boiler.....	F. J. Jackson and W. H. Wright.....	231,584	Aug. 24	1136	318	18	450
Wash-boiler.....	F. D. Taylor.....	231,507	Aug. 24	1046	294	18	437
Wash-boiler.....	O. Tilton.....	228,230	June 1	82	25	17	1240
Wash-stand.....	O. Hammerstein.....	223,907	Jan. 27	858	228	17	176
Wash-stand and bath-tub. Combined portable.....	W. S. Carpenter.....	230,403	July 27	1089	306	18	200

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Wash-stands, bath-tubs, &c. Combined valve and seal-joint for	J. Benner.....	226,476	Apr. 13	381	108	17	822
Wash-stands, &c. Seal-joint trap for	J. Benner.....	226,961	Apr. 27	974	271	17	939
Washer:							
See Butter-washer. Ore-washer.							
Clay-washer. Paper-pulp washer.							
Dish-washer. Slate-washer.							
Lock-washer. Steam-washer.							
Nut-lock washer.							
Washer and nut	W. W. Peck and H. H. Knight .....	224,472	Feb. 10	573	165	17	317
Washing and wringing machine. Combined	E. Wesner.....	230,683	Aug. 3	104	30	18	263
Washing and wringing machine. Combined	C. H. Wood.....	228,239	June 1	96	29	17	1242
Washing-machine	J. Anderson.....	225,316	Mar. 9	405	118	17	537
Washing-machine	F. E. Arnold.....	228,015	May 25	1097	312	17	1186
Washing-machine	A. Atkinson.....	231,750	Aug. 31	1339	377	18	469
Washing-machine	M. B. Atkinson.....	234,107	Nov. 2	336	92	18	1042
Washing-machine	T. J. Austin.....	224,321	Feb. 10	405	115	17	290
Washing-machine	L. Becker.....	232,667	Sept. 28	956	262	18	704
Washing-machine	R. H. Botts.....	234,848	Nov. 30	1292	347	18	1230
Washing-machine	E. Bourne.....	235,849	Dec. 28	990	274	18	1470
Washing-machine	J. E. Bowman.....	234,229	Nov. 9	497	136	18	1078
Washing-machine	J. O. Burch.....	229,030	June 22	1074	293	17	1416
Washing-machine	E. M. Chamness and J. T. Vaughn.....	224,876	Feb. 24	1069	306	17	424
Washing-machine	L. Churchman.....	226,280	Apr. 6	149	42	17	773
Washing-machine	E. A. Clark.....	226,976	Apr. 27	995	276	17	943
Washing-machine	V. Collian.....	231,762	Aug. 31	1350	380	18	491
Washing-machine	J. G. Crawford.....	234,393	Nov. 16	708	191	18	1121
Washing-machine	J. G. Crawford.....	235,073	Dec. 7	15	4	18	1283
Washing-machine	G. W. Dorris.....	223,717	Jan. 20	617	165	17	127
Washing-machine	J. Frelfoehr and F. Mahler.....	226,909	Apr. 27	912	254	17	930
Washing-machine	M. C. Greenland.....	225,593	Mar. 16	721	212 213	17	602
Washing-machine	W. Haas.....	225,278	Mar. 9	361	106	17	530
Washing-machine	F. Hamblin.....	223,728	Jan. 20	627	168	17	129
Washing-machine	J. S. Headen and J. I. Spainhower.....	225,127	Mar. 2	173	49	17	486
Washing-machine	C. D. Hoffman.....	227,781	May 18	805	228	17	1129
Washing-machine	W. W. Holloway and J. A. McCain.....	224,689	Feb. 17	832	236	17	371
Washing-machine	I. Hoover.....	229,610	July 6	117	31	18	26
Washing-machine	J. M. Hurd and J. W. Mosher.....	233,763	Oct. 26	1201	333	18	962
Washing-machine	M. L. Julian.....	229,711	July 6	231	64	18	42
Washing-machine	N. T. Lackey.....	232,135	Sept. 14	306	86	18	562
Washing-machine	W. H. Long.....	229,433	June 29	1532	422	17	1488
Washing-machine	S. G. Marlin.....	235,093	Dec. 7	35	11	18	1287
Washing-machine	S. C. McCullough.....	229,441	June 29	1539	424	17	1489
Washing-machine	C. H. Miller.....	225,714	Mar. 23	873	256	17	637
Washing-machine	U. Miller.....	223,938	Jan. 27	898	238	17	182
Washing-machine	F. L. Mitchell.....	229,547	July 6	50	13, 14	18	15
Washing-machine	G. E. Moncrief.....	228,667	June 8	604	162	17	1330
Washing-machine	H. T. Noble.....	231,842	Aug. 31	1449	407	18	506
Washing-machine	H. Oghorn.....	230,714	Aug. 3	137	40	18	269
Washing-machine	C. C. Oviatt.....	230,146	July 20	753	210	18	140
Washing-machine	L. J. and W. M. Parsons.....	228,108	May 25	1195	340	17	1203
Washing-machine	J. Paterson.....	226,780	Apr. 20	743	207	17	891
Washing-machine	J. B. Pettit.....	228,272	June 1	139	39	17	1249
Washing-machine	J. M. Phillips.....	230,810	Aug. 3	244	70	18	287
Washing-machine	T. and H. Phillips.....	229,178	June 22	1230	338	17	1438
Washing-machine	G. M. Pursell.....	235,168	Dec. 7	130	37	18	1303
Washing-machine	J. Sandles.....	228,685	June 8	621	167	17	1333
Washing-machine	J. F. Schlossstein.....	225,647	Mar. 16	782	229	17	612
Washing-machine	G. V. Shipp.....	227,311	May 4	252	73	17	1019
Washing-machine	W. M. and J. T. Smith.....	227,133	May 4	53	15	17	986
Washing-machine	T. Sorg, Jr.....	226,937	Apr. 27	948	263	17	935
Washing-machine	W. A. Spencer.....	224,238	Feb. 3	299	87	17	253
Washing-machine	W. Stacy and D. Benjamin.....	226,365	Apr. 6	240	71	17	790
Washing-machine	L. Sternberger.....	234,438	Nov. 16	762	205	18	1130
Washing-machine	T. Suppes.....	226,566	Apr. 13	488	138	17	839
Washing-machine	J. R. Talley, B. B. and G. W. Bast.....	231,119	Aug. 10	602	171	18	352
Washing-machine	N. Thomas.....	228,139	May 25	1229	349	17	1209
Washing-machine	O. Tilton.....	235,395	Dec. 14	414	116	18	1358
Washing-machine	P. Trambly and J. Gilbert.....	229,927	July 13	469	136	18	89
Washing-machine	J. H. Van De Water.....	230,367	July 20	1009	286	18	181
Washing-machine	E. M. Walker.....	227,140	May 4	64	18	17	988
Washing-machine	W. Wentworth and J. J. Colby.....	225,311	Mar. 9	398	116	17	536
Washing-machine	T. M. Westfall.....	224,259	Feb. 3	321	93	17	256
Washing-machine	G. L. Williams.....	231,515	Aug. 24	1056	296 297	18	438
Washing-machine	J. H. Williams.....	230,380	July 20	1023	289	18	183
Waste-pipe valve	J. C. Daggett.....	229,972	July 13	536	149	18	97
Waste-pipes, &c. Purifying and ventilating	R. Wilsdou.....	226,579	Apr. 13	499	141	17	840
Watch	D. A. A. Buck.....	234,233	Nov. 9	501	138	18	1079
Watch. Acoustic	G. A. Bowen.....	234,455	Nov. 16	762	210	18	1133
Watch and clock movement	E. Ware.....	223,417	Jan. 6	237	62	17	43
Watch balance-wheels. Apparatus for adjusting	F. F. Ide.....	230,781	Aug. 3	209	61	18	281
Watch-barrel	J. Martin.....	227,374	May 11	342	100	17	1044
Watch-barrel attachment	H. A. Riggs.....	225,421	Mar. 9	519	149	17	556
Watch-case	D. A. A. Buck.....	234,234	Nov. 9	502	138	18	1079
Watch-case	W. Calame.....	234,530	Nov. 16	867	231	18	1148
Watch-case	F. Ephraim.....	233,405	Oct. 19	772	212	18	880
Watch-case	E. C. Fitch.....	224,670	Feb. 17	813	230	17	367
Watch-case	F. Parker and F. Dumont, Jr.....	235,010	Nov. 30	1466	400	18	1263
Watch-case how	J. C. Dueber.....	229,681	July 6	192	53	18	36
Watch-case centers. Dies for forming	J. Geldreich.....	235,353	Dec. 14	365	100 101	18	1350

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Watch-case spring	W. Drysdale	227,504	May 11.	480	138	17	1068
Watch-case spring	L. W. Levy	227,116	May 4	27	8	17	983
Watch-cases. Device for making bezels and backs for.	T. Mueller	226,870	Apr. 27	870	242	17	923
Watch-cases. Manufacture of	C. H. Field	227,231	May 4	172	50	17	1005
Watch-chain swivel	J. L. Remlinger	224,952	Feb. 24	1146	328	17	437
Watch. Chronograph	C. H. Meylan	235,794	Dec. 21	899	251	18	1446
Watch-crown	H. Lefort	226,329	Apr. 6	202	60	17	783
Watch-crystal	C. F. Allen	230,214	July 20	830	235	18	153
Watch-dial	D. A. A. Buck	234,237	Nov. 9	503	139	18	1079
Watch-dial. Adjustable	E. C. Covell and W. F. Chase	227,415	May 11	380	112	17	1051
Watch-glass	J. H. Purdy	227,923	May 25	982	282	17	1169
Watch-key	F. B. Kendrick	231,173	Aug. 17	677	191	18	370
Watch-key	C. I. Loveren and J. H. Ritz	224,342	Feb. 10	429	123	17	293
Watch-key	G. P. Reed	231,681	Aug. 31	1255	353	18	476
Watch-key	G. P. Reed	231,729	Aug. 31	1315	370	18	485
Watch-maker's tool	J. D. Allen	223,211	Jan. 6	1	1	17	3
Watch-pendants. Bush for bow-holes for	W. S. Brower and J. Schlesinger	234,654	Nov. 23	1047	282	18	1184
Watch-plates, &c. Machine for stoning	A. H. Cleaves	231,275	Aug. 17	796	223	18	369
Watch-regulator	L. Eaton	235,940	Dec. 28	1101	304	18	1487
Watch-regulator. Micrometer	C. W. Mertz	229,162	June 22	1215	332	17	1437
Watch-regulator. Micrometer	P. H. Wheeler	229,215	June 22	1268	349	17	1444
Watch safety attachment	J. Roberts	235,454	Dec. 14	496	142	18	1372
Watch safety-pendant	C. C. Hirst	235,529	Dec. 14	584	167	18	1387
Watch spring-catch	G. F. Mertz	234,999	Nov. 30	1472	396	18	1260
Watch. Stem-winding	D. A. A. Buck	234,235	Nov. 9	503	138	18	1079
Watch. Stem-winding	D. A. A. Buck	234,236	Nov. 9	504	139	18	1079
Watch. Stem-winding	P. Droz-Jeannot, Fils	233,336	Oct. 19	686	188	18	866
Watch. Stem winding and setting	O. Davis	228,987	June 22	1028	280	17	1409
Watch. Stem winding and setting	H. J. Eisen	235,941	Dec. 28	1102	305	18	1487
Watch. Stem winding and setting	C. V. Woerd	230,596	July 27	1309	369	18	237
Watch stem winding and setting attachment	P. A. Vuille	225,542	Mar. 16	666	195	17	591
Watch stem-winding attachment	F. Blauer	230,995	Aug. 10	466	133	18	329
Watch. Stop	C. Gantzhorn	234,768	Nov. 23	1178	317	18	1205
Watch. Stop	H. A. Lugin	229,723	July 6	244	67	18	44
Watch. Stop	H. A. Lugin	232,737	Sept. 28	1029	283	18	717
Watches and clocks. Hair-spring stud for	R. L. Peabody	224,793	Feb. 24	980	278	17	410
Watches and clocks. Spring-power for	E. Ware	223,418	Jan. 6	238	63	17	43
Watches. Balance staff and wheel for	G. G. Bugbee	227,726	May 18	747	210	17	1120
Watches. Device for adjusting balance-spring of	C. R. Kinchan	232,276	Sept. 14	479	133	18	612
Watches. Hair-spring stud for	E. Rivett	224,227	Feb. 3	290	84	17	251
Watches. Pendant for stem-winding	J. T. Rossotti	225,874	Mar. 23	1059	302	17	667
Watches. Removable escapement for	F. Fitt	230,262	July 20	894	254	18	161
Watches. Winding-arbor for stem-winding	W. P. Hillick	225,220	Mar. 9	282	81	17	518
Water and steam wheel	T. R. Simmons	235,031	Nov. 30	1510	406	18	1266
Water. Apparatus for checking the waste of	E. E. Furney	232,483	Sept. 21	740	205	18	661
Water, &c. Apparatus for purifying	A. R. Lendner	225,014	Mar. 2	36	11	17	463
Water-bag	M. Mattson	230,711	Aug. 3	134	40	18	268
Water-closet	A. G. Alexander	234,934	Nov. 30	1391	374	18	1246
Water-closet	J. Demarest	233,145	Oct. 12	435	119	18	816
Water-closet	M. R. Forry and W. L. Hegeman	229,112	June 22	1163	318	17	1428
Water-closet	M. F. Gale	225,362	Mar. 9	454	132	17	545
Water-closet	G. Milne and W. H. Gants	226,338	Apr. 6	215	62	17	785
Water-closet	H. Owen	230,651	Aug. 3	68	19	18	257
Water-closet	S. S. Hellyer	234,570	Nov. 16	923	248	18	1157
Water-closet	G. and G. Jennings, Jr.	234,288	Nov. 9	568	154	18	1089
Water-closet	L. L. King	233,864	Nov. 2	46	12	18	993
Water-closet	J. Ross	231,684	Aug. 31	1258	354	18	476
Water-closet basin	D. Burke	233,470	Oct. 19	846	233	18	892
Water-closet basin	J. Demarest	235,134	Dec. 7	86	26	18	1296
Water-closet. Bidet	J. G. Van Houten	231,462	Aug. 24	998	281	18	429
Water-closet bowls. Flushing device for	T. Maddock	229,326	June 29	1412	387	17	1471
Water-closet signal	D. R. Baker	224,125	Feb. 3	178	51	17	233
Water-closet signal	D. R. Baker	227,403	May 11	368	109	17	1049
Water-closet tank and flushing connection	W. Smith	231,687	Aug. 31	1361	354	18	477
Water-closet valve	J. Demarest	226,224	Apr. 6	88	24	17	761
Water-closet valve	J. Demarest	232,008	Sept. 7	163	42	18	550
Water-closet valve	S. S. Leach	231,592	Aug. 24	1146	320	18	452
Water-closet valve	G. Milne and W. H. Gants	231,967	Sept. 7	116	29	18	542
Water-closet valve	W. M. Sack	235,573	Dec. 14	637	181	18	1396
Water-closet valves. Operating	J. J. Powers	232,902	Oct. 5	129	34	18	759
Water-closet ventilator for railway-cars and other conveyances	W. H. Smith	224,484	Feb. 10	583	168	17	319
Water-closets. Flushing-cistern for	S. G. McFarland	228,264	June 1	131	36	17	1247
Water-closets. Waste-water guard for	G. and G. Jennings, Jr.	234,287	Nov. 9	566	154	18	1089
Water-conductor	G. K. Reber	225,237	Mar. 9	302	87	17	521
Water conductor and joint	J. L. Old	233,690	Oct. 26	1119	312	18	948
Water conductor. Rain	J. G. Lamont	232,938	Nov. 2	127	35	18	1008
Water-cooler	G. Booth	229,664	July 6	176	49	18	34
Water-cooler	J. Hartmeyer and B. L. Gray	231,717	Aug. 31	1297	365	18	453
Water-cooler	T. D. Mowlds	224,712	Feb. 17	849	242	17	374
Water-cooler	T. D. Mowlds	235,696	Dec. 21	787	222	18	1427
Water cooler and purifier. Subterranean	G. Emerson	228,618	June 8	553	147	17	1322
Water. Device for cutting off weeds, &c., under	F. W. Lano	225,521	Jan. 13	385	102	17	80
Water-elevator	T. J. Adams	225,909	Mar. 30	1103	315	17	689
Water-elevator	G. E. Bigelow	224,862	Feb. 24	1052	300	17	422
Water-elevator	J. R. Cluxton	234,538	Nov. 16	879	234	18	1150
Water-elevator	L. W. Maxon	232,531	Sept. 21	794	220	18	670
Water-elevator	W. D. Mayfield	235,956	Dec. 28	1124	310	18	1491
Water-elevator	W. F. Smith	228,688	June 8	624	168	17	1333
Water-elevator	J. C. Voorhis	235,594	Dec. 14	661	187	18	1399



## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Water-elevator. Compressed-air.....	T. B. Keating, L. W. Clarke, and W. W. Gelatt.	223,925	Jan. 27	882	234	17	180
Water-elevator. Steam.....	E. W. Vanduzen.....	235,109	Dec. 7	51	16	18	1290
Water from atmospheric air. Apparatus for freeing..	O. Kropff.....	230,025	July 13	599	166	18	107
Water from pipes. Mechanism for detecting waste of.	B. L. Stowe.....	234,086	Nov. 2	315	87	18	1038
Water-gage.....	A. Allan, Jr.....	232,322	Sept. 21	543	151	18	629
Water-gage.....	J. R. Nunns and F. M. Clough.....	231,350	Aug. 17	872	245	18	402
Water-gage.....	T. C. Purves.....	226,418	Apr. 13	312	90	17	812
Water-gage.....	E. W. Vanduzen.....	229,571	July 6	76	21	18	20
Water gage and faucet.....	R. F. Walsh.....	235,473	Dec. 14	515	149	18	1375
Water-gage for marine boilers.....	A. H. Able.....	230,849	Aug. 10	307	89	18	305
Water-heater.....	D. K. Allington.....	234,645	Nov. 23	1037	279	18	1183
Water-heater.....	J. Burnett and F. M. Watkins.....	226,221	Apr. 6	84	22	17	761
Water-heater.....	W. R. Hinsdale.....	223,911	Jan. 27	862	229	17	177
Water-heater.....	K. McDonald.....	228,208	June 1	52	16	17	1236
Water heater and purifier.....	G. H. Zschech.....	232,322	Sept. 14	413	115	18	600
Water-heater. Fire-place.....	I. B. Potts.....	228,388	June 1	258	72	17	1268
Water heating and cooling apparatus.....	S. Mart and C. W. Bradley.....	224,193	Feb. 3	259	75	17	246
Water-meter.....	C. H. Bacon.....	225,963	Mar. 30	1184	337	17	701
Water-meter.....	A. Bocklet.....	226,023	Mar. 30	1256	354	17	712
Water-meter.....	F. A. Eikenkel and C. O. Müller.....	231,958	Sept. 7	107	26	18	541
Water-meter.....	R. J. Rogers.....	229,187	June 22	1238	340	17	1440
Water-meter.....	J. H. Shedd.....	231,939	Sept. 7	71	18, 19	18	536
Water-meter.....	J. H. Swartz and D. C. Taylor.....	233,446	Oct. 19	820	226	18	888
Water meter and motor.....	C. A. Read.....	227,576	May 11	562	160	17	1081
Water-meter. Steam.....	J. Burns.....	230,232	July 20	846	240	18	155
Water-motor.....	D. Drawbaugh.....	225,577	Mar. 16	703	207	17	599
Water-motor.....	W. Lay.....	223,930	Jan. 27	887	236	17	181
Water-motor.....	W. Lay.....	227,023	Apr. 27	1050	291 } 292 }	17	952
Water-motor.....	T. Leininger.....	224,299	Feb. 10	379	107	17	286
Water-motor.....	J. P. Müller.....	230,564	July 27	1270	358	18	230
Water-motor.....	W. E. Seelye.....	227,307	May 4	247	71	17	1018
Water-motor.....	L. I. Todd and A. Orme.....	232,422	Sept. 21	670	185	18	649
Water or wind mill.....	J. L. Nevers.....	224,467	Feb. 17	568	163	17	316
Water-power.....	R. Thamm.....	235,314	Dec. 7	294	83	18	1330
Water-proof compound.....	P. Crippen.....	229,963	July 13	527		18	95
Water-proof fabric.....	F. and W. F. Brigham, S. M. Hewitt, and W. F. Prusha.	226,031	Mar. 30	1264		17	713
Water-proof fabric.....	P. Peterson.....	227,573	May 11	560		17	1081
Waterproofing compound.....	D. M. Lamb.....	224,295	Feb. 10	374		17	285
Water. Raising.....	J. P. Frizell.....	233,499	Oct. 19	875	242	18	897
Water-raising apparatus.....	I. C. Richardson.....	227,993	May 25	1070	305	17	1183
Water-supply for cities and towns. System of.....	G. E. Beach.....	233,594	Oct. 26	1013	282	18	931
Water-tank attachment.....	A. B. Castle.....	225,565	Mar. 16	694	203	17	597
Water-tank for locomotive-tenders.....	A. Fredericks.....	232,020	Sept. 7	174	46	18	553
Water-tanks. Water-column for railway.....	T. J. McGowan.....	233,270	Oct. 12	579	160	18	841
Water-tanks. Watering-column for railway.....	J. N. Poage.....	223,607	Jan. 13	486	131	17	97
Water through pipes. Apparatus for elevating and forcing.....	T. Tully.....	224,561	Feb. 17	680	194	17	345
Water-tube boiler. Sectional.....	A. H. Fowler.....	233,228	Oct. 12	530	147 } 148 }	18	833
Water-wheel.....	J. L. Bates.....	224,128	Feb. 3	181	52	17	233
Water-wheel.....	E. B. Brooks.....	224,270	Feb. 10	344	99	17	280
Water-wheel.....	W. H. De Loach.....	231,411	Aug. 24	940	266	18	420
Water-wheel.....	K. H. Higginbotham.....	225,373	Mar. 9	466	136	17	547
Water-wheel.....	L. A. Pelton.....	233,692	Oct. 26	1122	313	18	949
Water-wheel.....	W. Sims.....	227,065	Apr. 27	1107	305	17	960
Water-wheel. Turbine.....	H. W. Baltz, Sr.....	223,979	Feb. 3	7	3	17	204
Water-wheel. Turbine.....	M. L. Byington.....	227,880	May 25	936	268	17	1162
Water-wheel. Turbine.....	W. B. Farrar.....	224,161	Feb. 3	212	62	17	239
Water-wheel. Turbine.....	W. Hacheney.....	228,629	June 8	567	150	17	1324
Water-wheel. Turbine.....	I. Holmes.....	227,253	May 4	193	56	17	1009
Water-wheel. Turbine.....	W. Mercer.....	223,236	Jan. 6	34	8	17	8
Water-wheel. Turbine.....	A. L. Moore and N. S. Parker.....	231,079	Aug. 10	556	157	18	344
Water-wheel. Turbine.....	T. S. Pylant.....	229,751	July 6	278	78	18	49
Water-wheel. Turbine.....	W. H. Ridgway.....	230,339	July 20	979	278	18	175
Water-wheel. Turbine.....	S. Secrest.....	235,102	Dec. 7	44	14	18	1288
Water-wheel. Turbine.....	J. H. Staples.....	231,458	Aug. 24	994	280	18	429
Water-wheel. Turbine.....	W. Hensley.....	231,041	Aug. 10	516	145	18	337
Water-wheel. Undershot.....	L. T. Slye.....	234,209	Nov. 9	476	129	18	1074
Watering stock.....	J. J. Ray.....	235,701	Dec. 21	795	224	18	1429
Watering stock. Apparatus for.....	D. E. Shaw and D. Brigham.....	232,077	Sept. 7	240	66	18	563
Watering stock. Apparatus for.....	W. A. Warren.....	226,812	Apr. 20	779	217	17	897
Watering stock. Valve for water-pipes for.....	J. F. Elliott.....	226,227	Apr. 6	90	25	17	762
Watering-trough for stock.....	R. Macintosh.....	226,619	Apr. 20	571	159	17	864
Waxed ends. Mechanism for the manufacture of.....	J. C. Dupue and C. P. Housum.....	235,860	Dec. 23	999	277	18	1471
Weaner. Calf.....	G. W. Mills.....	231,836	Aug. 31	1440	405	18	505
Weather-board gage.....	W. J. Anderson.....	223,796	Jan. 27	721	195	17	155
Weather-strip.....	G. W. Bell.....	227,404	May 11	370	109	17	1049
Weather-strip.....	J. W. Browne.....	232,387	Sept. 21	626	172	18	642
Weather-strip.....	J. M. Ceis.....	228,604	June 8	539	144	17	1320
Weather-strip.....	W. H. Cosper.....	231,151	Aug. 17	645	183	18	365
Weather-strip.....	J. A. Franklin.....	232,957	Oct. 5	196	51	18	770
Weather-strip.....	D. L. Grant.....	228,526	June 8	438	120	17	1305
Weather-strip.....	S. A. Piper.....	227,051	Apr. 27	1087	300	17	957
Weather-strip.....	A. Pratt.....	233,277	Oct. 12	588	162	18	843
Weather-strip.....	D. F. Stambaugh and H. H. Crail.....	227,313	May 4	255	74	17	1020
Weather-strip.....	J. T. Westbrook.....	225,033	Mar. 2	65	19	17	467
Weaving gauze. Doup-heddle for.....	E. Maertens.....	233,267	Oct. 12	575	159	18	841
Weaving suspender-strap webbing.....	W. F. Osborne.....	234,056	Nov. 2	281	77	18	1033
Weaving. Waxing warps in.....	G. B. Stephenson.....	231,862	Aug. 31	1474	414	18	510
Web-winding machine.....	G. Rosquist.....	232,650	Sept. 23	930	256	18	700

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Wedge for ax and tool handles	G. P. Morrill	224,029	Feb. 3	64	20	17	214
Weeding-machine	C. F. A. Miller	231,676	Aug. 31	1250	352	18	475
Weighing and transferring apparatus. Grain	E. S. Richards	226,108	Mar. 30	1352	380	17	726
Weighing fluids. Device for	C. G. Cross	223,999	Feb. 3	31	10	17	208
Weights. Apparatus for raising	W. and W. T. Eades	235,625	Dec. 21	706	200	18	1414
Well	D. H. Tichenor	234,214	Nov. 9	481	131	18	1075
Well-boring apparatus	H. S. Gail	229,996	July 13	568	157	18	102
Well-boring apparatus	W. W. Vaughn	234,151	Nov. 9	397	108	18	1060
Well-boring apparatus	E. P. Watrous	235,319	Dec. 7	301	85	18	1331
Well-boring machine	J. W. Teetzel	227,859	May 18	887	252 253	17	1143
Well-casing	H. Shear and H. M. Toomey	230,829	Aug. 3	273	78	18	291
Well casing. Oil	E. J. Little	234,995	Nov. 30	1466	394	18	1259
Well-casings. Cutter for removing	J. S. Munger	224,465	Feb. 10	566	163	17	316
Well-drilling apparatus	T. N. Larsen	232,191	Sept. 14	376	104	18	594
Well-drilling machine	R. M. Downie	228,737	June 15	716	197	17	1357
Well. Reservoir	D. H. Tichenor	233,714	Oct. 26	1149	320	18	953
Well. Tubular	J. A. Newell and A. Lucasse	222,185	Apr. 6	46	11	17	754
Wells. Apparatus for flooding oil	H. R. Davis	225,111	Mar. 2	153	44	17	483
Wells. Apparatus for increasing the production from oil	C. S. Sheup	230,353	July 20	995	282	18	178
Wells. Apparatus for lining	W. Wilson	233,826	Oct. 26	1275	357	18	975
Wells. Apparatus for making	J. W. Hammett	224,182	Feb. 3	239	70	17	243
Wells. Blasting in oil	J. Sager	229,845	July 13	403	111	18	76
Wells. Device for cleaning paraffine from the tubings of oil	J. W. Baum	230,917	Aug. 10	380	110	18	316
Wells. Drilling-machine for Artesian and oil	F. Knowlan	234,586	Nov. 16	958	254	18	1163
Wells. Drilling-machine for Artesian and other	P. Sweeney	234,346	Nov. 9	628	171	18	1100
Wells. Ejector for oil	L. Stewart	235,712	Dec. 21	804	226	18	1430
Wells. Electric heater for oil	A. W. Dingman and H. H. Argue	231,287	Aug. 17	806	226	18	391
Wells. Oil-saver for oil	C. Jarecki	224,090	Feb. 3	143	40	17	227
Wells. Pipe-grapple for oil and other	J. B. Jenkins	230,783	Aug. 3	211	62	18	281
Wells. Polish-rod adjuster for oil and other	W. R. Edelen	227,887	May 25	942	270	17	1163
Wells. Tool for extracting tubular casings from oil	J. H. Luther	229,325	June 29	1411	386	17	1471
Welt-trimmer	W. R. Barton	233,190	Oct. 12	485	134	18	825
Welt-trimmer	W. R. Barton	235,493	Dec. 14	537	154	18	1379
Welt-trimmer	S. Deacon and W. Miller	235,854	Dec. 28	995	276	18	1471
Whale-blubber. Machine for mincing	P. Cunningham	232,691	Sept. 28	980	270	18	709
Wheat, &c. Apparatus for trimming or smutting	W. Lauhoff	230,138	July 20	743	207	18	139
Wheat-drill	B. F. Carson	225,742	Mar. 23	904	263	17	642
Wheat-drill	S. Williams	225,545	Mar. 16	671	196	17	592
Wheat-header	H. C. Johnson	234,130	Nov. 9	376	103	18	1056
Wheat scouring and polishing machine	W. and C. Currier	235,672	Dec. 21	755	215	18	1422
Wheel:							
See Bull-wheel.	Polishing-wheel.						
Car-wheel.	Printing-wheel.						
Current and tide	Propeller-wheel.						
water wheel.	Spinning-wheel.						
Emery-wheel.	Tracing-wheel.						
Fifth-wheel.	Traction-wheel.						
Grinding and polish-	Turbine wheel.						
ing wheel.	Vehicle-wheel.						
Grinding, polish-	Vehicle jacking-wheel.						
ing, and buffing	Water-wheel.						
wheel.	Water and steam wheel.						
Paddle-wheel.	Wind-wheel.						
Wheel and pulley	E. E. Josef	229,138	June 22	1192	326	17	1433
Wheel-bearing	J. H. Hughes	227,632	May 18	629	180	17	1103
Wheel-guard	S. Brisac	226,970	Apr. 27	986	274	17	942
Wheel-making machine	W. Casady	234,753	Nov. 23	1162	313	18	1202
Wheels. Making	W. Newlin	224,215	Feb. 3	278	80	17	250
Wheelbarrow	J. and F. L. Kincannon	226,325	Apr. 6	199	59	17	782
Wheelbarrow	H. E. Smith	230,357	July 20	1000	283	18	179
Whiffletree	F. O. Fischer	230,764	Aug. 3	192	56	18	278
Whiffletree	C. Hassinger	225,371	Mar. 9	464	135	17	547
Whiffletree	R. A. Miller	232,999	Oct. 5	242	67	18	778
Whiffletree	T. T. Pearson	230,490	July 27	1196	336	18	217
Whiffletree	G. Salot	227,843	May 18	870	247	17	1140
Whiffletree	B. Warren	226,642	Apr. 20	602	167	17	868
Whiffletree	H. M. Whitehead	225,250	Mar. 9	315	90	17	524
Whiffletree	F. R. Willson	226,896	Apr. 27	899	250	17	928
Whiffletree-clip	L. W. Frederick	225,924	Mar. 30	1130	321	17	692
Whiffletree clip-bolt	H. Reinhold and A. Schreiber	233,281	Oct. 12	592	163	18	844
Whiffletree-guard	W. I. Marsh	223,745	Jan. 20	647	173	17	132
Whiffletree-hook	T. J. Christy	223,482	Jan. 13	341	91	17	73
Whiffletree-hook	W. C. Coddington	229,959	July 13	523	145	18	95
Whiffletree-hook	W. Freeland	224,673	Feb. 17	817	231	17	368
Whiffletree-hook	E. Hanrahan	228,345	June 1	212	60	17	1261
Whiffletree-hook	J. C. Horner and J. A. Ray	229,888	July 13	446	123	18	83
Whiffletree-hook	A. Pfeiffer	233,639	Oct. 26	1063	296	18	939
Whiffletree-hook	J. A. Varc	231,381	Aug. 17	905	254	18	407
Whiffletree-hook	W. J. Woods	229,790	July 6	322	89	18	55
Whiffletree-hook	C. Wright	234,449	Nov. 16	777	208	18	1132
Whiffletree. Safety-	B. J. Quattlebaum	229,463	June 29	1568	433	17	1493
Whip	M. A. Gilman	234,769	Nov. 23	1179	317	18	1205
Whip and rein holder. Combined	G. D. Anderson	224,982	Mar. 2	2	1	17	457
Whip-ferrule	H. J. Bush	232,452	Sept. 21	708	196	18	655
Whip-handle	J. C. Schmidt	227,391	May 11	359	105	17	1047
Whip-handle	J. C. Schmidt	227,392	May 11	359	105	17	1047
Whip-rolling machine	C. M. Comstock	226,495	Apr. 13	405	115	17	826
Whip-snap	J. J. Bohler and E. S. Phinney	232,670	Sept. 28	959	263	18	705
Whip-socket	G. W. Eddy	231,412	Aug. 24	942	266	18	420
Whip-socket	H. B. Pitner	225,489	Mar. 16	605	175	17	581
Whip-socket	J. H. Sunderman	224,241	Feb. 3	302	88	17	253

*Alphabetical list of inventions—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Whip-socket	J. M. Underwood	231,510	Aug. 24	1050	294	18	437
Whip-socket fastener	A. E. Hawley	225,281	Mar. 9	365	107	17	530
Whisk	H. Bradt	223,703	Jan. 20	604	161	17	125
Whisky. Making	M. J. Allen and W. E. Bradley	229,653	July 6	161	.....	18	33
Whistle and compass. Combined	L. W. Fairchild	233,742	Oct. 26	1177	327	18	958
Whistle for steam-boilers. Dnplex	J. V. Jové	227,539	May 11	520	150	17	1075
Whitewash composition	A. H. Kerr	226,758	Apr. 20	722	.....	17	888
Wick attachment. Lamp	W. Bruening	235,504	Dec. 14	555	158	18	1392
Wick. Lamp	I. G. Chandlee	231,400	Aug. 24	931	263	18	418
Wick. Lamp	H. D'Arcus	235,215	Dec. 7	189	51	18	1312
Wick. Lamp	G. W. McCormick	224,203	Feb. 3	266	77	17	247
Wick-raiser for lamp-stoves	J. H. Holmgreen	233,856	Nov. 2	37	9, 10	18	993
Wick trimmer and burner and chimney cleaner. Combined lamp	J. Coyle, Jr.	235,999	Dec. 28	1168	324	18	1499
Wick trimmer. Lamp	A. S. Charles	224,148	Feb. 3	200	58	17	236
Wick trimmer. Oil-stove	M. W. Walker and G. E. Williams	233,822	Oct. 26	1270	355	18	974
Wick-tube. Flat	J. W. Kumbly	231,180	Aug. 17	687	193	18	371
Wick-tube for lamp and stove burners	N. Crotsenburg	234,706	Nov. 23	1108	298	18	1193
Wicks or matches of miners' squibs. Compound for preparing	G. Hayes	230,775	Aug. 3	204	.....	18	280
Wind-engine	J. R. Brink	232,673	Sept. 28	961	263	18	705
Wind-engine	C. H. Burleigh and W. A. Wheeler	233,977	Nov. 2	182	46, 47	18	1016
Wind-engine	W. and A. J. Goforth	232,258	Sept. 14	460	127	18	608
Wind-engine	R. E. Strait	225,539	Mar. 16	665	194	17	591
Wind-engine	A. Thomson	228,695	June 8	629	171	17	1334
Wind-engine	W. T. Urie	223,616	Jan. 13	496	133 134	17	98
Wind-wheel	J. Austin	231,253	Aug. 17	773	216	18	385
Wind-wheel	J. Bachelder	232,799	Oct. 5	4	1	18	739
Wind-wheel	F. H. Bolte	229,580	July 6	86	23	18	22
Wind-wheel	H. Sr., and H. Croft, Jr.	224,817	Feb. 24	1004	284	17	414
Wind-wheel	J. Gilstrap	236,018	Dec. 28	1192	330	18	1502
Wind-wheel	T. B. Gray	232,815	Oct. 5	22	6	18	742
Wind-wheel	G. A. Myers	229,907	July 13	463	128	18	86
Wind-wheel	J. C. Preston	232,205	Sept. 14	395	110	18	597
Wind-wheel	J. Sander	234,617	Nov. 16	989	263	18	1168
Wind-wheel	H. B. Smith	232,558	Sept. 21	820	227	18	675
Wind-wheel	O. D. Thompson	235,470	Dec. 14	513	148	18	1375
Wind-wheel	A. D. Worman	228,157	May 25	1248	354	17	1211
Winding cord or rope. Guide for	M. Donnelly	227,743	May 18	766	216	17	1123
Winding mechanism for going-barrels	E. Wright	232,663	Sept. 28	947	260	18	703
Windlass	T. W. Hyde	231,047	Aug. 10	523	147	18	338
Windlass for binding hay on wagons	F. H. Burnham	230,610	Aug. 3	13	4	18	249
Windmill	J. S. Adams	233,178	Oct. 12	471	130	18	823
Windmill	S. E. Ament	235,333	Dec. 14	342	94	18	1346
Windmill	L. C. Ashley	230,988	Aug. 10	460	131	18	328
Windmill	J. O. Baird	224,628	Feb. 17	766	216 217	17	359
Windmill	A. S. Baker	235,194	Dec. 7	158	44, 45	18	1308
Windmill	H. N. Baker	233,392	Oct. 19	756	207	18	878
Windmill	J. F. Barker	223,308	Jan. 6	122	31	17	22
Windmill	J. M. Barnes	223,465	Jan. 13	318	84, 85	17	69
Windmill	G. M. Beard	233,134	Oct. 12	422	116	18	814
Windmill	M. Berdan	225,554	Mar. 16	682	200	17	594
Windmill	H. H. Bevil	226,265	Apr. 6	133	37	17	769
Windmill	T. Bright	226,030	Mar. 30	1263	356	17	713
Windmill	O. Colvin	226,036	Mar. 30	1272	358	17	714
Windmill	E. B. Cook	230,614	Aug. 3	21	6	18	250
Windmill	L. C. Coriell and J. Adams	234,392	Nov. 16	708	191	18	1121
Windmill	M. Crossman	227,493	May 11	471	135	17	1066
Windmill	J. and J. B. Cushman	226,498	Apr. 13	408	116	17	827
Windmill	L. M. Devore	227,418	May 11	384	113	17	1051
Windmill	E. Dice	230,928	Aug. 10	391	113	18	318
Windmill	A. S. Dimock	232,469	Sept. 21	726	201	18	658
Windmill	W. Forbes	233,226	Oct. 12	528	147	18	832
Windmill	J. F. Garatt	234,975	Nov. 30	1447	389	18	1255
Windmill	S. B. Goff	223,725	Jan. 20	624	167	17	128
Windmill	A. W. Haag	233,237	Oct. 12	542	150	18	835
Windmill	D. C. Harris	233,928	Nov. 2	115	31	18	1006
Windmill	N. Holmes	234,188	Nov. 9	444	120	18	1068
Windmill	W. R. Howe	233,510	Oct. 19	887	245	18	899
Windmill	W. C. Jacob	234,580	Nov. 16	954	252	18	1162
Windmill	H. P. Johnson	231,430	Aug. 24	964	272	18	424
Windmill	E. E. Johnson and C. S. Moak	233,353	Oct. 19	708	193	18	870
Windmill	A. Juclfs	227,540	May 11	520	150	17	1075
Windmill	E. Lanphear	232,514	Sept. 21	776	215	18	607
Windmill	E. J. Marsters	234,138	Nov. 9	383	105	18	1057
Windmill	J. M. May	227,175	May 4	101	29	17	994
Windmill	W. H. B. Page	223,379	Jan. 6	193	51	17	35
Windmill	D. C. Payne and D. A. Danforth	228,672	June 8	609	163	17	1331
Windmill	J. J. Reed	228,677	June 8	614	165	17	1332
Windmill	G. Rischmüller	226,421	Apr. 13	315	91	17	812
Windmill	B. M. Rolph	234,204	Nov. 9	470	127 128	18	1073
Windmill	C. F. Rudolph	227,842	May 18	868	247	17	1140
Windmill	G. Saccone	226,357	Apr. 6	233	68	17	788
Windmill	N. Small	227,591	May 11	581	166	17	1084
Windmill	A. H. Smith	228,283	June 1	151	42	17	1251
Windmill	E. S. Stahley	223,256	Jan. 6	59	14	17	13
Windmill	J. H. Tevis	224,247	Feb. 3	310	90	17	254
Windmill	M. D. Thayer	229,774	July 6	305	85	18	53
Windmill	J. H. Therien	230,209	July 20	824	233	18	152
Windmills. Mechanical movement for	W. S. Marshall	227,909	May 25	968	277	17	1167
Windmills. Mechanical movement for	W. S. Marshall	227,910	May 25	969	278	17	1167

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Windmills, &c. Rotary attachment for.	O. L. Blackman	232,875	Oct. 5	99	27	18	754
Window	G. Smith	235,035	Nov. 30	1515	408	18	1267
Window-adjusting device	J. Holbrook	231,319	Aug. 17	839	236	18	397
Window and door protector	E. Guild	227,355	May 11	318	92, 93,	17	1041
Window and door screen	A. F. Demorest	232,467	Sept. 21	724	201	18	658
Window-button securer	K. D. Hughes	227,978	May 25	1054	300	17	1180
Window-chair	W. H. Blackler	226,156	Apr. 6	9	2	17	748
Window. Colored-glass	J. La Farge	224,631	Feb. 24	1016	237	17	416
Window-fastener	L. Stebbins	224,604	Feb. 24	991	231	17	411
Window-frame	S. H. Decou	224,818	Feb. 24	1005	234	17	414
Window-frame pocket	H. D. Pursell	232,616	Sept. 28	892	246	18	694
Window-netting	C. T. Phelan	225,021	Mar. 2	46	13	17	464
Window-opener	A. K. Mansfield	229,621	July 6	127	35	18	27
Window safety device	R. D'Heureuse	225,704	Mar. 23	864	252, 253	17	636
Window-screen	A. M. Barrell, A. R. Miner, and J. W. Bodge.	231,649	Aug. 31	1221	343	18	471
Window-screen	G. Hartig	223,341	Jan. 6	156	40, 41	17	28
Window-screen	O. P. Howe	225,383	Mar. 9	476	139	17	549
Window-screen	J. Joseph	232,725	Sept. 23	1016	230	18	714
Window-screen	R. Perrin	228,384	June 1	253	71	17	1267
Window-screen	J. Reigart	227,446	May 11	416	121	17	1056
Window-screen	B. N. Terrey	232,573	Sept. 21	831	231	18	677
Window-screen	J. Ward	235,660	Dec. 21	742	211	18	1420
Window-screen. Adjustable	T. W. Dowling	229,032	June 22	1076	293	17	1416
Window-screen frame	J. E. Ratcliff	229,010	June 22	1057	288	17	1413
Windows. Device for hanging articles in	H. Dumars	228,988	June 22	1029	230	17	1409
Wire and rods. Machine for coiling	C. Hewitt and J. Withington	235,359	Dec. 14	371	102	18	1351
Wire and rods. Machine for coiling	W. J. Lewis	229,718	July 6	238	66	18	43
Wire. Apparatus for hardening and tempering	D. Bateman	224,127	Feb. 3	180	51	17	233
Wire. Apparatus for hardening and tempering	J. C. Ramsden	231,848	Aug. 31	1460	410	18	508
Wire-barbing machine	J. Ayres and A. C. Decker	235,331	Dec. 14	337	93	18	1345
Wire-barbing machine	W. E. and J. C. Butler	226,276	Apr. 6	143	41	17	772
Wire-barbing machine	P. W. Leffler	232,831	Oct. 5	45	13	18	745
Wire-barbing machines. Tension apparatus for	I. R. Whiteman	226,946	Apr. 27	959	266	17	937
Wire-bending machine	I. A. Kilmer	235,538	Dec. 14	595	170	18	1388
Wire-bending machine	I. A. Kilmer	235,781	Dec. 21	882	246	18	1443
Wire-bending machine	H. Martyn	227,804	May 18	828	234	17	1133
Wire cables. Machine for making barbed	N. G. and T. D. Ross	233,116	Oct. 12	399	110, 111	18	810
Wire-coiler	T. T. Prosser	231,093	Aug. 10	574	162	18	347
Wire-coiling device	C. D. Rogers	229,915	July 13	473	131	18	87
Wire-coiling machine	G. Gale	230,123	July 20	723	202	18	136
Wire-coiling machine	T. T. Prosser	231,090	Aug. 10	570	161	18	347
Wire-coiling reel	D. C. Stover	224,805	Feb. 24	992	231	17	412
Wire-conductor	J. F. Martin	225,845	Mar. 23	1022	294	17	661
Wire-conductor for houses	J. F. Martin	225,844	Mar. 23	1021	294	17	661
Wire-drawing	V. D. P. Kenerson	224,829	Feb. 24	1015		17	416
Wire finishing and straightening machine	W. Kenerson	226,175	Apr. 6	32	9	17	752
Wire for drawing. Preparing	C. H. Morgan	229,836	July 13	337		18	73
Wire hook and tack	W. R. Clough	235,515	Dec. 14	565	161	18	1383
Wire, &c. Machine for polishing	S. P. M. Tasker	223,657	Jan. 20	551	148	17	117
Wire. Manufacture of draw-plates for drawing	C. D. Rogers	226,883	Apr. 27	885	246	17	926
Wire or rod cutter	W. H. Palmer and W. A. Root	230,607	Aug. 3	240	69	18	286
Wire-pointing device	C. D. Rogers	230,718	Aug. 3	141	42	18	269
Wire-reeling machine	W. B. Hayden	231,571	Aug. 24	1120	314	18	448
Wire rods. Reel for coiling	C. H. Morgan	224,941	Feb. 24	1134	324	17	435
Wire rods. Reel for coiling	C. H. Morgan and F. H. Daniels	224,942	Feb. 24	1135	324	17	435
Wire springs. Machine for forming conical	H. Gail	228,624	June 8	561	149	17	1323
Wire-stretcher	M. G. Clark	230,529	July 27	1232	348	18	224
Wire-stretcher	J. Fowle	224,892	Feb. 24	1037	312	17	423
Wire-stretcher	H. Hemenway	228,350	June 1	216	61	17	1262
Wire-stretcher	G. Nicholson	229,449	June 29	1551	427	17	1491
Wire-stretching device	W. R. Horsley	233,619	Oct. 26	1037	238	18	934
Wire-tightener	R. Ellwood	229,953	July 13	548	152	18	99
Wire-twister	D. A. Kilmer	228,905	June 15	920	250	17	1385
Wire-twisting machine	D. A. Kilmer	230,553	July 27	1260	355, 356	18	229
Wire-twisting machine	I. Sedgwick	233,033	Oct. 5	231	78, 79	18	785
Wires. Machine for forming loops for	G. D. Haworth	233,751	Oct. 26	1187	329	18	960
Wood. Artificial	W. Grossmann	225,822	Mar. 23	1003		17	658
Wood. Bending	L. Pine	230,437	July 27	1131	318	18	206
Wood-bending machine	G. F. Almy	234,935	Nov. 30	1392	374	18	1246
Wood-bending machine	S. R. Bailey	223,269	Jan. 6	74	19	17	15
Wood-bending machine	F. Denninger	228,878	June 15	894	244	17	1361
Wood-bit	L. Thuston	228,421	June 1	228	81	17	1273
Wood-cutting machine	W. P. Campbell	227,955	May 25	1027	293	17	1176
Wood-cutting machine	J. H. Phipps	224,556	Feb. 17	676	193	17	345
Wood-cutting tool	F. Hanson	225,474	Mar. 16	590	171	17	578
Wood-filling compound	D. C. Cooley and C. H. Parker	228,982	June 22	1024		17	1408
Wood. Flexible band for bending	E. L. Buckingham	228,597	June 8	531	142	17	1319
Wood. Machine for forming ornamental designs upon	J. P. Jamison	232,823	Oct. 5	34	9, 10	18	744
Wood, &c. Machine for smoothing	W. Sack	224,450	Feb. 10	560	167	17	318
Wood. Ornamentation of	F. W. Martin	231,233	Aug. 17	752	210	18	382
Wood. Ornamenting	R. C. Pruyn and C. M. Hyatt	234,610	Nov. 16	982	261	18	1167
Wood-polishing machine	A. Bridgman and J. L. Perry	226,273	Apr. 6	140	40	17	771
Wood-polishing machine	G. Pelsting	224,473	Feb. 10	574	165	17	317
Wood. Preserved	H. G. Müller	236,065	Dec. 28	1248		18	1512
Wood. Preserving	J. D. Francks	231,419	Aug. 24	951	268	18	422
Wood. Producing designs upon	S. K. Devereux	230,407	July 27	1094		18	290
Wood. Seasoning	H. Flad	231,783	Aug. 31	1377	338	18	495
Wood-surfacing machine	L. Houston	233,620	Oct. 26	1038	289	18	934
Wood, &c. Treating	C. B. Carter	235,070	Dec. 7	12		18	1283
Wood-turning machine	F. Hanson	234,472	Nov. 16	803	216	18	1137

## Alphabetical list of inventions—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Wood-turning machine.....	F. Hanson.....	235,526	Dec. 14	581	{ 165 166	{ 18	1386
Wood-worker. Variety.....	W. H. Doane, G. W. Passel, and G. W. Bugbee.....	227,223	May 4	160	47, 48	17	1004
Wood-working machine.....	A. W. Stossmeister.....	229,199	June 22	1251	344	17	1441
Wood-working machines. Sectional shaft for.....	W. H. Doane.....	228,046	May 25	1123	320	17	1191
Wooden bows, &c. Machine for bending.....	C. Wright.....	224,757	Feb. 17	898	257	17	382
Wooden box.....	H. P. Garland.....	232,887	Oct. 5	113	30	18	756
Wooden box.....	F. L. Wilsen.....	228,011	May 25	1094	311	17	1186
Wooden box-blanks. Machine for cutting.....	W. Huey.....	224,437	Feb. 10	536	155	17	311
Wooden rods. Polishing round.....	C. Erk.....	223,732	Jan. 20	621	166	17	123
Wooden shovels. Machine for shaping.....	J. Franzmann.....	235,352	Dec. 14	363	100	18	1349
Wool and other fibers. Apparatus for opening and loosening.....	F. F. Seeland.....	233,288	Oct. 12	601	165	18	845
Wool-oiling machine.....	F. G. Sargent.....	224,044	Feb. 3	79	24	17	217
Wool-oiling machine.....	F. G. Sargent.....	229,012	June 22	1059	288	17	1413
Wool-washing machine.....	J. K. Proctor and J. H. Knowles.....	227,053	Apr. 27	1089	{ 301 302	{ 17	957
Wool-washing machine.....	F. G. Sargent.....	223,393	Jan. 6	207	55	17	38
Wool-washing machine.....	F. G. Sargent.....	227,928	May 25	988	283	17	1170
Wool-washing machine.....	F. G. Sargent.....	230,152	July 20	761	212	18	141
Wool-washing machine.....	F. G. Sargent.....	235,901	Dec. 28	1048	{ 289 290	{ 18	1479
Work-bench. Carpenter's.....	G. Lettenmyer.....	227,275	May 4	212	62	17	1012
Work-box.....	S. J. Talbott.....	227,858	May 18	887	252	17	1143
Work-table. Lady's.....	O. R. Stein.....	227,069	Apr. 27	1112	306	17	961
Woven fabrics. Machine for stretching.....	R. Holt.....	230,703	Aug. 3	123	36	18	266
Wrench:							
<i>See</i> Axle-nut wrench.      Pipe-wrench.							
Carriage-wrench.      Pipe and nut wrench.							
Monkey-wrench.      Tap-wrench.							
Wrench.....	J. H. Alexander.....	226,149	Apr. 6	2	1	17	747
Wrench.....	A. Beard.....	232,923	Oct. 5	155	41	18	763
Wrench.....	J. C. Beeks.....	229,359	June 29	1455	400	17	1477
Wrench.....	J. W. Calef.....	226,490	Apr. 13	400	113	17	825
Wrench.....	W. C. Coddington.....	231,763	Aug. 31	1351	380	18	491
Wrench.....	J. H. Coes.....	232,114	Sept. 14	286	81	18	579
Wrench.....	L. Coes.....	229,673	July 6	183	51	18	35
Wrench.....	T. P. Franke.....	231,303	Aug. 17	822	230	18	394
Wrench.....	L. Glynn.....	227,892	May 25	950	272	17	1164
Wrench.....	L. and A. Y. Gray.....	227,765	May 18	787	223	17	1127
Wrench.....	J. P. Haigh.....	235,083	Dec. 7	26	8	18	1285
Wrench.....	J. M. F. Hall and J. H. S. Coleman.....	230,270	July 20	902	256	18	163
Wrench.....	R. Hayden.....	228,755	June 15	741	204	17	1360
Wrench.....	L. P. Hiatt.....	233,507	Oct. 19	885	244	18	899
Wrench.....	A. J. Higgins.....	228,634	June 8	574	152	17	1325
Wrench.....	H. P. Hood.....	225,135	Mar. 2	179	50	17	487
Wrench.....	W. H. Lightcap.....	234,994	Nov. 30	1465	394	18	1259
Wrench.....	J. A. Mell.....	228,827	June 15	838	229	17	1373
Wrench.....	J. A. Mell and W. Wortenbe.....	231,831	Aug. 31	1436	404	18	504
Wrench.....	E. Miller.....	226,582	Apr. 13	502	142	17	841
Wrench.....	A. Shepard.....	231,454	Aug. 24	990	279	18	428
Wrench.....	H. A. Thompson.....	234,091	Nov. 2	319	88	18	1039
Wrench.....	J. M. Totten.....	236,114	Dec. 28	1310	361	18	1522
Wrench.....	G. H. Warren.....	230,595	July 27	1308	369	18	237
Wrench.....	D. Weir.....	232,581	Sept. 21	839	233	18	678
Wrench and screw-driver. Combined.....	J. K. Collins.....	234,540	Nov. 16	882	235	18	1150
Wringer:							
<i>See</i> Clothes-wringer.      Mop-wringer.							
Wringer.....	H. B. Adams.....	230,599	Aug. 3	1	1	18	247
Wringer.....	R. C. Browning.....	229,666	July 6	177	49	18	35
Wringer.....	H. A. Gore.....	226,399	Apr. 13	287	84	17	808
Wringing-machine.....	F. Bernhardt.....	226,647	Apr. 20	606	169	17	868
Wringing-machine.....	C. H. Miller.....	235,096	Dec. 7	38	12	18	1287
Wringing-machine bench.....	J. B. Brackett and J. R. Bailey.....	234,653	Nov. 23	1046	281	18	1184
Wrist-pin. Adjustable.....	L. Thomas.....	234,090	Nov. 2	319	88	18	1039
Writing on manifold paper. Stylus for.....	L. H. Rogers.....	235,898	Dec. 28	1044	288	18	1478
Yarn. Apparatus for detecting knots in.....	R. Alioth.....	225,039	Mar. 2	73	20	17	468
Yoke center. Neck.....	J. S. Nelson.....	226,670	Apr. 20	630	176	17	873
Yoke center-swivel. Neck.....	J. Jacobs.....	225,059	Mar. 2	99	27, 28	17	473
Yoke leather. Neck.....	E. and J. C. Covert.....	231,012	Aug. 10	484	137	18	332
Yoke. Neck.....	J. L. Babb.....	229,938	July 13	501	139	18	91
Yoke. Neck.....	J. W. Barton.....	234,940	Nov. 30	1397	376	18	1247
Yoke. Neck.....	A. B. and J. J. Clark.....	227,413	May 11	379	111	17	1051
Yoke. Neck.....	H. Jacobs.....	225,058	Mar. 2	98	27	17	473
Yoke. Neck.....	A. K. Munson.....	230,328	July 27	966	274	18	173
Yoke. Neck.....	T. N. Rudgers.....	231,619	Aug. 24	1173	328	18	456
Yoke. Neck.....	P. J. Vehlen.....	226,134	Mar. 30	1380	389	17	732
Yoke. Neck.....	W. W. Winter.....	228,502	June 8	410	112	17	1301
Yoke ring. Neck.....	M. J. Curtiss.....	231,154	Aug. 17	648	183	18	366
Yoke ring. Neck.....	H. Jacobs.....	226,662	Apr. 20	623	173	17	872
Yoke tip. Neck.....	C. Shuman.....	235,911	Dec. 28	1064	294	18	1482
Zinc. Apparatus for treating.....	R. Wiester.....	228,965	June 15	982	267	17	1394
Zinc. Manufacture of chloride of.....	E. J. Mallett, Jr.....	236,051	Dec. 28	1231	.....	18	1509
Zinc or white-lead fumes. Separating and condensing.....	S. Murrell.....	229,448	June 29	1550	427	17	1491
Zithern.....	C. E. Holtz.....	224,535	Feb. 17	651	187	17	340



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Design.	Name.	No.	Date.	Official Gazette.	
				Volume.	Page.
Aerated liquids. Apparatus for dispensing .....	C. E. Hires .....	11,699	Mar. 23	17	630
Badge .....	E. M. Regna .....	11,981	Oct. 19	18	861
Bell. Box .....	H. Thau .....	12,047	Nov. 30	18	1227
Bell-pull .....	H. Jaworski .....	11,635	Feb. 3	17	202
Book. Christmas .....	H. E. Manchester .....	11,970	Sept. 28	18	687
Book-clasp .....	F. W. Horn .....	11,788	May 25	17	1159
Border. Ornamental .....	E. B. Stimpson .....	{ 12,055 } to { 12,058 }	Dec. 7	18	1279
Bottle .....	T. M. Lahey .....	11,864	July 13	18	65
Bottle. Fountain .....	M. H. Hagerty .....	11,868	July 13	18	65
Bracelets .....	C. Hein .....	11,779	May 18	17	1097
Bracelets .....	F. Kursh .....	11,893	Aug. 3	18	245
Bracelets .....	J. A. Lieb .....	11,664	Mar. 2	17	455
Bracelets .....	J. H. Shoemaker .....	11,599	Jan. 13	17	62
Brush-holders .....	R. Skoog .....	11,719	Apr. 6	17	746
Buckles .....	P. Hayden .....	11,640	Feb. 3	17	202
Buckles .....	W. B. North .....	12,031	Nov. 9	18	1051
Buckles. Harness .....	W. B. Hayden .....	11,826	June 22	17	1405
Buckles. Roller .....	J. E. Wightman .....	11,649	Feb. 10	17	277
Bulletin-board. Railroad .....	A. S. Mann .....	11,841	July 6	18	2
Button .....	C. F. Waldron .....	12,081	Dec. 28	18	1467
Button-card .....	G. P. Farmer .....	11,671	Mar. 9	17	513
Button-hook .....	C. T. Jones .....	11,876	July 20	18	133
Buttons .....	J. Rowbotham .....	11,675	Mar. 9	17	513
Calendar and paper-weight. Combined .....	F. L. Felton .....	11,937	Aug. 10	18	304
Card-baskets or ornaments .....	L. O. Koonen .....	11,568	Jan. 6	17	1
Cards. Playing .....	A. J. Manning .....	11,979	Oct. 19	18	861
Cards. Visiting .....	P. Hake .....	11,604	Jan. 13	17	62
Cards. Visiting .....	P. P. McHugh .....	11,718	Apr. 6	17	746
Carpet .....	J. Barrett .....	11,982	Oct. 26	18	957
Carpet .....	H. Christie .....	11,859	July 13	18	65
Carpet .....	H. Christie .....	11,869	July 13	18	65
Carpet .....	E. Fisher .....	{ 11,569 } to { 11,574 }	Jan. 13	17	62
Carpet .....	J. Fisher .....	{ 11,575 } to { 11,579 }	Jan. 13	17	62
Carpet .....	W. J. Gadsby .....	11,633	Feb. 3	17	202
Carpet .....	W. J. Gadsby .....	{ 11,662 } to { 11,663 }	Mar. 2	17	455
Carpet .....	W. J. Gadsby .....	11,681	Mar. 16	17	573
Carpet .....	W. J. Gadsby .....	11,775	May 11	17	1037
Carpet .....	W. J. Gadsby .....	11,983	Oct. 26	18	957
Carpet .....	W. J. Gadsby .....	12,067	Dec. 21	18	1409
Carpet .....	A. Heald .....	{ 11,608 } to { 11,610 }	Jan. 20	17	112
Carpet .....	H. Horan .....	11,674	Mar. 9	17	513
Carpet .....	H. Horan .....	11,710	Mar. 30	17	688
Carpet .....	H. Horan .....	11,831	June 29	17	1453
Carpet .....	H. Horan .....	11,840	July 6	18	1
Carpet .....	H. Horan .....	{ 11,860 } to { 11,861 }	July 13	18	65
Carpet .....	H. Horan .....	12,042	Nov. 30	18	1227
Carpet .....	H. Hunt .....	12,043	Nov. 30	18	1227
Carpet .....	W. L. Jacobs .....	11,862	July 13	18	65
Carpet .....	W. L. Jacobs .....	11,870	July 13	18	65
Carpet .....	W. L. Jacobs .....	11,875	July 20	18	133
Carpet .....	W. L. Jacobs .....	{ 12,068 } to { 12,069 }	Dec. 21	18	1409
Carpet .....	C. Magee .....	{ 12,027 } to { 12,028 }	Nov. 9	18	1051
Carpet .....	D. McNair .....	11,611	Jan. 20	17	112
Carpet .....	D. McNair .....	11,683	Mar. 16	17	573
Carpet .....	D. McNair .....	11,759	May 4	17	978
Carpet .....	D. McNair .....	{ 11,842 } to { 11,843 }	July 6	18	2
Carpet .....	D. McNair .....	11,891	July 27	18	195
Carpet .....	D. McNair .....	11,950	Aug. 17	18	362
Carpet .....	D. McNair .....	12,070	Dec. 21	18	1409
Carpet .....	J. Neil .....	11,849	July 6	18	2
Carpet .....	J. B. Neil .....	12,007	Nov. 2	18	985
Carpet .....	H. Nordmann .....	{ 11,832 } to { 11,833 }	June 29	17	1453
Carpet .....	G. W. Piggott .....	11,834	June 29	17	1453
Carpet .....	G. W. Piggott .....	{ 11,851 } to { 11,852 }	July 6	18	2
Carpet .....	G. W. Piggott .....	11,867	July 13	18	65
Carpet .....	T. J. Stearns .....	11,612	Jan. 20	17	112
Carpet .....	T. J. Stearns .....	11,619	Jan. 27	17	154
Carpet .....	T. J. Stearns .....	11,647	Feb. 10	17	277
Carpet .....	T. J. Stearns .....	11,654	Feb. 17	17	334

*Alphabetical list of designs—Continued.*

Design.	Name.	No.	Date.	Official Gazette.	
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Carpet.....	T. J. Stearns.....	11,666	Mar. 2	17	455
Carpet.....	T. J. Stearns.....	11,691	Mar. 16	17	574
Carpet.....	T. J. Stearns.....	11,720	Apr. 6	17	746
Carpet.....	T. J. Stearns.....	{ 11,800 to 11,803 }	June 1	17	1226
Carpet.....	T. J. Stearns.....	11,949	Aug. 17	18	362
Carpet.....	T. J. Stearns.....	12,046	Nov. 30	18	1227
Carpet.....	C. W. Swapp.....	{ 11,581 to 11,595 }	Jan. 13	17	62
Carpet.....	C. W. Swapp.....	11,605	Jan. 13	17	62
Carpet.....	P. Tétrel.....	11,602	Jan. 13	17	62
Carpet.....	P. Tétrel.....	11,613	Jan. 20	17	112
Carpeting.....	E. Fisher.....	{ 11,623 to 11,625 }	Feb. 3	17	202
Carpeting.....	E. Fisher.....	11,631	Feb. 3	17	262
Carpeting.....	E. Fisher.....	{ 11,903 11,904 }	Aug. 3	18	245
Carpeting.....	E. Fisher.....	{ 11,921 11,922 }	Aug. 3	18	245
Carpeting.....	J. Fisher.....	{ 11,626 to 11,630 }	Feb. 3	17	202
Carpeting.....	J. Fisher.....	11,905	Aug. 3	18	245
Carpeting.....	J. Fisher.....	11,923	Aug. 3	18	245
Carpeting.....	J. Forrester.....	{ 11,701 to 11,703 }	Mar. 23	17	630
Carpeting.....	J. Forrester.....	11,787	May 25	17	1159
Carpeting.....	F. W. Green.....	11,704	Mar. 23	17	630
Carpeting.....	E. J. Ney.....	11,607	Jan. 13	17	62
Carpeting.....	E. Poole.....	11,632	Feb. 3	17	202
Carpeting.....	E. Poole.....	{ 11,705 to 11,707 }	Mar. 23	17	630
Carpeting.....	E. Poole.....	{ 11,711 to 11,713 }	Mar. 30	17	638
Carpeting.....	E. Poole.....	11,906	Aug. 3	18	245
Carpeting.....	E. Poole.....	{ 11,924 to 11,927 }	Aug. 3	18	245
Carpeting.....	C. W. Swapp.....	{ 11,621 11,622 }	Feb. 3	17	202
Carpeting.....	C. W. Swapp.....	{ 11,907 to 11,920 }	Aug. 3	18	245
Carpeting.....	C. W. Swapp.....	{ 11,928 to 11,931 }	Aug. 3	18	245
Carriage-body.....	F. W. Porter.....	11,954	Aug. 24	18	415
Carriage-door fender.....	M. Wiard.....	11,805	June 1	17	1226
Carriage-shackles.....	W. S. Ward.....	11,641	Feb. 3	17	202
Carriage-step pad.....	H. M. Beecher.....	12,079	Dec. 28	18	1467
Chain hook. Watch.....	E. A. Bliss.....	11,858	July 13	18	65
Chain-link. Ornamental.....	D. A. Beam.....	11,824	June 15	17	1353
Chain-link. Ornamental.....	E. F. Seery.....	11,790	May 25	17	1159
Chain. Ornamental.....	J. A. Lieb.....	11,855	July 6	18	2
Chain. Watch.....	E. A. Bliss.....	11,825	June 22	17	1405
Chair.....	E. L. Buckingham.....	11,839	July 6	18	1
Chandelier.....	F. R. Seidensticker.....	11,942	Aug. 10	18	304
Chandelier-hook.....	R. Christesen.....	{ 11,808 11,809 }	June 8	17	1287
Check. Bank.....	R. Miller.....	12,076	Dec. 21	18	1409
Cigar and cigarette holders.....	P. Kurczyn.....	11,877	July 20	18	134
Cigar-box.....	F. W. Sigourney.....	11,819	June 8	17	1287
Cloak. Campaign.....	B. T. Wells.....	11,974	Oct. 5	18	737
Clock and inkstand.....	C. Kitschelt.....	11,813	June 8	17	1287
Clock-case.....	W. D. Chase.....	11,717	Apr. 6	17	745
Clock-case.....	G. Havell.....	11,730	Apr. 13	17	803
Clock-case pedestal and front.....	H. J. Davies.....	11,902	Aug. 3	18	245
Clock-frame.....	L. B. Tuttle.....	11,676	Mar. 9	17	513
Clock-stand.....	H. J. Davies.....	12,065	Dec. 21	18	1409
Clock-stand.....	C. Kitschelt.....	11,811	June 8	17	1287
Clothes-hook.....	S. C. Cary.....	11,889	July 27	18	195
Cockeye-clip.....	J. D. Hull.....	11,827	June 22	17	1405
Coffin-handles.....	A. B. Bailey and H. Brainard.....	11,723	Apr. 13	17	803
Coffin-handles.....	W. R. McComas.....	{ 12,017 12,018 }	Nov. 9	18	1051
Coffin-handles.....	J. W. Rogers.....	11,818	June 8	17	1287
Coffin-handles.....	W. M. Smith.....	11,652	Feb. 10	17	278
Coffin-handle socket.....	F. W. Brocksieper.....	11,807	June 8	17	1287
Coffin-handle socket.....	E. A. Cuppers.....	11,810	June 8	17	1287
Coffin-handle socket.....	W. E. Stevens.....	11,791	May 25	17	1159
Coffin-handle socket.....	W. E. Stevens.....	11,857	July 6	18	2
Coffin-lid lifters.....	J. W. Rogers.....	11,798	June 1	17	1226
Coffin-plato.....	W. M. Smith.....	{ 11,945 11,946 }	Aug. 17	18	361
Coffin-screws.....	E. A. Cuppers.....	11,786	May 25	17	1159
Coffin-screws.....	E. A. Cuppers.....	12,033	Nov. 16	18	1117
Coffin-screws.....	W. M. Smith.....	11,765	May 4	17	978
Confectionery. Article of.....	P. Kuopp.....	12,061	Dec. 14	18	1343

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Design.	Name.	No.	Date.	Official Gazette.	
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Corset.....	M. P. Bray.....	12,040	Nov. 30	18	1227
Cruet. Pepper.....	S. McKee.....	11,744	Apr. 20	17	855
Curtain and loop.....	E. S. Yergason.....	11,947	Aug. 17	18	362
Curtain-band.....	B. Dreyfus.....	12,066	Dec. 21	18	1409
Curtain-pole.....	J. Berbecker.....	11,708	Mar. 30	17	687
Dish for dinner-set of table-service.....	T. R. Davis.....	11,936	Aug. 10	18	303
Dish for fish course of table-service.....	T. R. Davis.....	11,935	Aug. 10	18	303
Dish for game course of table-service.....	T. R. Davis.....	11,932	Aug. 10	18	303
Dish for soup course of table-service.....	T. R. Davis.....	11,933	Aug. 10	18	303
Door-mat. Rubber.....	A. O. Bourn.....	11,972	Sept. 28	18	687
Door-pull.....	H. Jaworski.....	11,816	June 8	17	1287
Draft-stand for aerated and other beverages.....	F. H. Shepherd.....	11,714	Mar. 30	17	688
Drinking-fountain.....	H. F. Jenks.....	11,817	June 8	17	1287
Envelopes.....	H. C. Bainbridge.....	11,686	Mar. 16	17	573
Escutcheon. Door.....	R. Christesen.....	11,620	Feb. 3	17	202
Fan.....	E. F. Eble.....	{ 11,776 } 11,777	May 18	17	1097
Fire-iron, &c., stand.....	R. Christesen.....	12,041	Nov. 30	18	1227
Fire-place.....	W. C. Peet.....	11,850	July 6	18	2
Flowers, matches, &c. Holder for.....	J. W. Tufts.....	11,660	Feb. 24	17	402
Flush-bolt.....	H. Jaworski.....	11,678	Mar. 9	17	513
Fork and spoon handles.....	W. C. Beattie.....	11,680	Mar. 16	17	573
Fountain.....	W. Tweedale.....	11,975	Oct. 12	18	797
Fringe for knitted fabrics.....	G. Upton.....	11,804	June 1	17	1226
Funeral ornaments.....	J. W. Rogers.....	11,799	June 1	17	1226
Funeral ornaments.....	J. B. Sargent.....	12,032	Nov. 9	18	1051
Funeral ornaments.....	W. M. Smith.....	11,754	Apr. 27	17	912
Furniture seat and back.....	G. W. Rich.....	12,049	Nov. 30	18	1227
Game-board.....	H. C. Mann and G. W. Lee.....	12,029	Nov. 9	18	1051
Gem-setting.....	A. Vennin and J. B. Peltier.....	12,037	Nov. 16	18	1117
Gimp.....	H. Davenport.....	12,052	Dec. 7	18	1279
Gimp.....	J. Graham.....	11,727	Apr. 13	17	803
Gimp.....	J. C. Graham.....	{ 11,958 } to 11,960	Aug. 31	18	467
Gimp.....	W. V. Oothout.....	11,977	Oct. 12	18	797
Glass articles. Stem of.....	J. Anderson.....	11,838	July 6	18	1
Glass tumblers, mugs, &c.....	R. J. Beatty.....	11,653	Feb. 17	17	333
Glass vessels.....	W. R. Warner.....	11,667	Mar. 2	17	455
Glasses, &c. Bases or supports for.....	H. L. Palmer.....	11,685	Mar. 16	17	573
Glassware.....	A. H. Baggs.....	12,006	Nov. 2	18	985
Glassware.....	W. C. King and G. B. Swift.....	12,080	Dec. 28	18	1467
Handkerchief.....	J. Grimshaw.....	{ 11,723 } to 11,726	Apr. 13	17	803
Handkerchief.....	J. Grimshaw.....	11,751	Apr. 27	17	911
Handkerchief.....	A. Tilt.....	11,673	Mar. 9	17	513
Handkerchief-pattern.....	W. Smith.....	11,962	Sept. 14	18	575
Harness-trimming.....	W. B. North.....	12,030	Nov. 9	18	1051
Hay-rack. Stable.....	M. Wiard.....	11,853	July 6	18	2
Hinges.....	R. Christesen.....	11,606	Jan. 13	17	62
Hinges.....	R. Christesen.....	11,753	May 4	17	978
Hinges.....	C. B. Clark.....	11,871	July 20	18	133
Hinges. Butt.....	H. Jaworski.....	11,634	Feb. 3	17	202
Holder for flowers, matches, &c.....	F. H. Shepherd.....	{ 11,596 } to 11,598	Jan. 13	17	62
Holder for flowers, matches, &c.....	F. H. Shepherd.....	{ 11,600 } 11,601	Jan. 13	17	62
Horse-blanket.....	F. D. Allen.....	12,060	Dec. 14	18	1343
Horse-blocks.....	W. Eddy, A. Reynolds, N. S. Langdon, and J. M. Eddy.....	11,709	Mar. 30	17	688
Inkstand.....	E. L. Morris.....	11,951	Aug. 17	18	362
Jewel-cases and clocks.....	H. J. Davies.....	11,746	Apr. 27	17	911
Jewelry.....	G. Hartie.....	12,075	Dec. 21	18	1409
Jewelry-box. Base of a.....	E. Steinle.....	11,762	May 4	17	978
Jewelry-pendant.....	F. Dimier.....	11,716	Mar. 30	17	688
Key-bows.....	G. S. Barkentin.....	11,794	June 1	17	1226
Key-bows.....	G. S. Barkentin.....	{ 12,050 } 12,051	Dec. 7	18	1279
Key-bows.....	G. S. Barkentin.....	12,059	Dec. 7	18	1280
Key-bows.....	G. S. Barkentin.....	12,077	Dec. 28	18	1467
Key-bows.....	F. W. Mix.....	11,615	Jan. 20	17	112
Key-bows.....	F. W. Mix.....	11,639	Feb. 3	17	202
Knife handles. Pocket.....	J. D. Frary.....	{ 11,749 } 11,750	Apr. 27	17	911
Knit drawers.....	S. Condé.....	11,636	Feb. 3	17	202
Knit drawers.....	S. Condé.....	11,741	Apr. 20	17	855
Knit fabric.....	C. E. Bean.....	11,976	Oct. 12	18	797
Knit fabric.....	S. Condé.....	{ 11,669 } 11,670	Mar. 9	17	513
Knit shirts.....	S. Condé.....	11,740	Apr. 20	17	855
Knitted fabric.....	S. Appleton.....	11,738	Apr. 20	17	855
Knitted fabric.....	C. H. Landenberger.....	12,072	Dec. 21	18	1409
Knitted mittens.....	J. Collins.....	12,064	Dec. 21	18	1409
Knob-rose.....	G. S. Barkentin.....	11,963	Sept. 14	18	575
Lace-pins.....	E. A. Bliss.....	11,692	Mar. 23	17	630
Lamp-bracket.....	F. R. Seidensticker.....	11,823	June 15	17	1353
Lamp-bracket.....	F. R. Seidensticker.....	12,036	Nov. 16	18	1117
Lamp-fount.....	J. J. Nichols and W. S. McLewee.....	{ 11,939 } 11,940	Aug. 10	18	304
Lamp-fountain.....	W. H. Reby.....	11,890	July 27	18	195
Lamp-shado.....	J. Palme.....	11,880	July 20	18	134
Lamp-shade.....	B. B. Schneider.....	11,901	Aug. 3	18	245

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Design.	Name.	No.	Date.	Official Gazette.	
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Lamp-standard .....	A. Patitz .....	11,941	Aug. 10	18	304
Lamp-standard .....	F. R. Seidensticker .....	11,829	June 22	17	1405
Letters .....	D. C. Imboden .....	11,651	Feb. 10	17	277
Magneto-galvanic medal-battery .....	E. P. Caldwell .....	11,637	Feb. 3	17	202
Match-box .....	C. Kitschelt .....	11,863	July 13	18	65
Medal-batteries .....	J. R. Flanigan .....	11,656	Feb. 24	17	402
Medal-batteries .....	J. M. Lewis and N. R. Brice .....	11,796	June 1	17	1226
Medallions .....	H. Knubel, Jr. ....	11,617	Jan. 27	17	154
Mementoes for perpetuating the memory of deceased friends and relatives.	E. W. Donovan .....	11,756	Apr. 27	17	912
Moldings. Wood .....	H. D. Benjamin .....	11,785	May 18	17	1097
Monuments .....	P. Kennedy .....	11,948	Aug. 17	18	362
Monuments .....	J. and J. Pool .....	{ 11,792 } 11,793	May 25	17	1160
Monuments .....	J. Thayer .....	11,648	Feb. 10	17	277
Monuments of Egyptian obelisk .....	R. Busteed .....	11,755	Apr. 27	17	912
Neckwear. Ladies' .....	A. Back .....	12,015	Nov. 9	18	1051
Newel-post .....	J. I. Healey .....	11,736	Apr. 13	17	804
Newel-post .....	H. Textor .....	{ 12,025 } 12,026 11,644	Nov. 9	18	1051
Oil-cloth .....	C. T. and V. E. Meyer .....	{ 11,646 } 11,769	Feb. 10	17	277
Oil-cloths .....	C. T. and V. E. Meyer .....	{ 11,774 } 11,844	May 11	17	1037
Oil-cloth .....	C. T. and V. E. Meyer .....	{ 11,848 } 11,894	July 6	18	2
Oil-cloth .....	C. T. and V. E. Meyer .....	{ 11,900 } 11,938	Aug. 3	18	245
Oil-cloth .....	C. T. and V. E. Meyer .....	{ 11,996 } 11,998	Aug. 10	18	304
Oil-cloth .....	C. T. and V. E. Meyer .....	{ 12,063 } 11,742	Oct. 26	18	957
Oil-cloth. Floor .....	J. Barrett .....	{ 11,742 } 11,743	Dec. 21	18	1409
Organ-cases .....	A. Wagner .....	{ 12,062 } 11,735	Apr. 20	17	855
Ornament upon locket-faces, &c .....	C. E. Mason .....	11,735	Dec. 14	18	1343
Ornamental pin .....	A. Vester .....	11,658	Apr. 13	17	804
Ornamenting metal surfaces .....	J. Hewitson .....	11,697	Feb. 24	17	402
Ornamenting plates and dishes .....	F. A. Marra .....	11,638	Mar. 23	17	630
Overshoes .....	C. A. Ensign .....	11,821	Feb. 3	17	202
Overshoes .....	C. A. Ensign .....	11,763	June 15	17	1353
Padlock-cases .....	C. L. Bellamy .....	11,953	May 4	17	978
Pen and pencil case .....	J. U. Gerow .....	11,737	Aug. 24	18	415
Pen and pencil cases. Barrels for .....	J. C. Aikin .....	11,806	Apr. 13	17	804
Pencil-case barrels .....	J. C. Aikin .....	11,693	June 8	17	1287
Pencil-cases .....	C. H. Court .....	11,764	Mar. 23	17	630
Pencil-cases .....	C. H. Downes .....	11,795	May 4	17	978
Pencil-cases .....	L. W. Fairchild .....	12,001	June 1	17	1226
Pencil-cases .....	L. W. Fairchild .....	11,856	Oct. 26	18	957
Piano-forte case .....	C. F. T. Steinway .....	12,002	July 6	18	2
Picture-chart .....	S. Hursen .....	11,835	Oct. 26	18	957
Picture or mirror frame .....	J. R. Ritchie .....	11,766	June 29	17	1453
Pin. Ornamental .....	C. Z. De Young .....	12,000	May 11	17	1037
Polishing-head .....	C. L. Bellamy .....	11,965	Oct. 26	18	957
Powdered articles. Package for .....	S. S. Newton .....	11,815	Sept. 14	18	575
Range .....	I. A. Sheppard .....	11,767	June 8	17	1287
Ring .....	C. Z. De Young .....	11,650	May 11	17	1037
Ruches .....	G. G. Bates .....	11,567	Feb. 10	17	277
Ruching. Neck .....	H. Schild .....	11,752	Jan. 6	17	1
Saw-blades .....	A. H. Loehs .....	11,603	Apr. 27	17	911
Saw-handles .....	J. R. Woodrough .....	11,973	Jan. 13	17	62
Scarfs. Neck .....	S. T. Brow .....	11,739	Oct. 5	18	737
Scarfs. Neck .....	C. H. Crossette .....	{ 11,780 } 11,784	Apr. 20	17	855
Scarfs. Neck .....	T. J. Flagg .....	{ 11,672 } 11,820	May 18	17	1097
Scarf-pin .....	J. Paxton .....	12,074	Mar. 9	17	513
Scarf pin. Military .....	C. H. Case and W. Riker .....	11,999	June 15	17	1353
Screws. Head of picture .....	R. B. Tunstall .....	11,969	Dec. 21	18	1409
Sewing-machine case .....	E. F. French .....	11,971	Oct. 26	18	957
Sewing-machine case .....	E. Genes .....	11,980	Sept. 28	18	687
Sewing-machine case .....	J. Stephan .....	12,045	Sept. 28	18	687
Shirt-bosom .....	A. Plant .....	11,944	Oct. 19	18	861
Skirt .....	J. Schoenhof .....	11,655	Nov. 30	18	1227
Sleigh frame-work .....	R. M. Stivers .....	11,778	Aug. 17	18	361
Spoon and fork handles .....	W. B. Durgin .....	11,822	Feb. 17	17	334
Spoon and fork handles .....	G. Gill .....	11,966	May 18	17	1097
Spoon and fork handles .....	G. Gill .....	11,968	June 15	17	1353
Spoon and fork handles .....	G. Gill and E. L. Brittin .....	12,053	Sept. 21	18	627
Spoon and fork handles .....	C. T. Grosjean .....	11,657	Sept. 21	18	627
Spoon and fork handles .....	W. H. Lewis .....	11,745	Dec. 7	18	1279
Spoon and fork handles .....	W. Rogers .....	11,761	Feb. 24	17	402
Spoon and fork handles .....	W. Rogers .....	11,661	Apr. 20	17	855
Spoon and fork handles .....	A. Furniss .....	11,728	May 4	17	978
Spoon or fork handles .....	C. T. Grosjean .....	11,614	Mar. 2	17	455
Spoon or fork handles .....	A. Hart .....	11,956	Apr. 13	17	803
Spoons and forks .....	L. F. Griswold .....	11,961	Jan. 20	17	112
Spoons and forks .....	L. F. Griswold .....	11,814	Aug. 24	18	415
Spoons and forks .....	G. Wilkinson .....		Aug. 31	18	467
Spoons and forks .....			June 8	17	1287

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Design.	Name.	No.	Date.	Official Gazette.	
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Spoons, forks, &c.....	L. S. White.....	11,700	Mar. 23	17	630
Spurs.....	A. Buermann.....	11,715	Mar. 30	17	688
Stage-scene.....	W. A. Mestayer.....	11,679	Mar. 16	17	573
Stall-guard.....	M. Wiard.....	11,721	Apr. 6	17	746
Stalls. Post for stable.....	M. Wiard.....	11,854	July 6	18	2
Statuary. Group of.....	J. Rogers.....	11,797	June 1	17	1236
Statuary. Group of.....	J. Rogers.....	12,039	Nov. 23	18	1181
Statue.....	R. Kasinski.....	11,984	Oct. 26	18	957
Stocking fabric.....	J. E. Hanifen.....	11,682	Mar. 16	17	573
Stocking fabric.....	J. E. Hanifen.....	11,690	Mar. 16	17	574
Stocking fabrics. Ornamental.....	J. E. Hanifen.....	11,729	Apr. 13	17	803
Stocking fabrics. Ornamental.....	J. E. Hanifen.....	11,753	Apr. 27	17	911
Stool. Piano.....	G. W. Archer and G. W. Lyon.....	12,071	Dec. 21	18	1409
Stove.....	H. C. Bascom and T. S. Heister.....	12,078	Dec. 28	18	1467
Stove.....	W. C. Davis.....	{ 11,747 }	Apr. 27	17	911
Stove.....	I. T. Montross.....	11,748			
Stove.....	N. S. Vedder and T. S. Heister.....	11,957	Aug. 21	18	415
Stove.....	N. S. Vedder and T. S. Heister.....	11,882	July 20	18	134
Stove. Base-burning.....	N. S. Vedder and T. S. Heister.....	11,884	July 20	18	134
Stove. Box.....	C. A. Hodges.....	11,873	July 20	18	133
Stove. Cooking.....	H. C. Bascom and T. S. Heister.....	11,879	July 20	18	134
Stove. Cooking.....	H. C. Bascom and T. S. Heister.....	11,885	July 20	18	134
Stove. Cooking.....	H. L. Fennell.....	12,034	Nov. 16	18	1117
Stove. Cooking.....	I. A. Sheppard.....	11,831	July 20	18	134
Stove. Cooking.....	N. S. Vedder and T. S. Heister.....	11,872	July 20	18	133
Stove. Cooking.....	N. S. Vedder and T. S. Heister.....	11,883	July 20	18	134
Stove. Cooking.....	N. S. Vedder and F. Ritchie.....	11,887	July 27	18	195
Stove-doors.....	J. F. Quimby.....	11,760	May 4	17	978
Stove. Elevated-oven cooking.....	T. S. Heister.....	11,874	July 20	18	133
Stove. Elevated-oven cooking.....	C. A. Hodges and T. S. Heister.....	11,888	July 27	18	195
Stove. Globe.....	H. C. Bascom and T. S. Heister.....	11,878	July 20	18	134
Stove. Magazine.....	N. S. Vedder and T. S. Heister.....	11,886	July 27	18	195
Stove-urn.....	J. Dwyer.....	11,952	Aug. 17	18	362
Suspender-ends.....	W. F. Osborne.....	11,684	Mar. 16	17	573
Table-cover.....	H. Picbler.....	11,866	July 13	18	65
Table-service. Dessert set of plates for.....	T. R. Davis.....	11,934	Aug. 10	18	303
Table-ware.....	T. Maddock.....	11,828	June 22	17	1405
Ten-pin.....	W. E. Crandall.....	12,016	Nov. 9	18	1051
Tobacco-cutter.....	O. S. Harmon.....	12,073	Dec. 21	18	1409
Tobacco. Plug.....	P. B. Gravely and R. W. Lawson.....	11,892	July 27	18	195
Toilet-stand.....	C. Kitschelt.....	11,812	June 8	17	1287
Torches.....	J. M. Adams.....	11,616	Jan. 27	17	154
Toy money-box.....	J. H. Bowen.....	11,967	Sept. 21	18	627
Toy money-box.....	L. Kyser and A. C. Rex.....	11,943	Aug. 10	18	304
Toy money-box.....	L. Kyser and A. C. Rex.....	12,044	Nov. 30	18	1227
Type. Font of border printing.....	W. H. Page.....	12,022	Nov. 9	18	1051
Type. Font of printing.....	G. G. Bailey, Jr., and J. Gilbert.....	11,757	May 4	17	978
Type. Font of printing.....	J. M. Conner.....	11,642	Feb. 3	17	202
Type. Font of printing.....	J. Herriet.....	11,630	June 29	17	1453
Type. Font of printing.....	J. Herriet.....	12,003	Oct. 26	18	957
Type. Font of printing.....	C. E. Heyer.....	11,643	Feb. 3	17	202
Type. Font of printing.....	C. E. Heyer.....	11,768	May 11	17	1037
Type. Font of printing.....	H. Ihlenburg.....	{ 11,836 }	June 29	17	1453
Type. Font of printing.....	W. W. Jackson.....	11,837			
Type. Font of printing.....	W. W. Jackson.....	11,659	Feb. 24	17	402
Type. Font of printing.....	W. W. Jackson.....	11,789	May 25	17	1159
Type. Font of printing.....	W. H. Page.....	{ 12,019 }	Nov. 9	18	1051
Type. Font of printing.....	W. H. Page.....	to			
Type. Font of printing.....	W. H. Page.....	{ 12,021 }	Nov. 9	18	1051
Type. Font of printing.....	W. H. Page.....	12,023			
Type. Font of printing.....	J. K. Rogers.....	11,978	Oct. 12	18	797
Type. Font of printing.....	J. K. Rogers.....	12,035	Nov. 16	18	1117
Type. Font of printing.....	A. Will.....	{ 12,004 }	Oct. 26	18	957
Type. Font of printing.....	A. Will.....	12,005			
Type. Font of printing.....	A. Will.....	12,008	Nov. 2	18	985
Type. Font of printing.....	A. Zeese.....	11,955	Aug. 24	18	415
Umbrella-handles.....	S. Heiter and S. J. Lesem.....	{ 11,687 }	Mar. 16	17	573
Umbrella-handles.....	S. Heiter and S. J. Lesem.....	11,688			
Umbrella-handles.....	S. Heiter and S. J. Lesem.....	{ 11,694 }	Mar. 23	17	630
Umbrella-handles.....	S. Heiter and S. J. Lesem.....	to			
Umbrella-handles.....	S. Heiter and S. J. Lesem.....	11,696	Mar. 23	17	630
Umbrella-handles.....	S. Heiter and S. J. Lesem.....	11,698			
Umbrella-handles.....	F. J. Kaldenberg.....	{ 11,731 }	Apr. 13	17	804
Umbrella-handles.....	F. J. Kaldenberg.....	to			
Umbrella-handles.....	F. J. Kaldenberg.....	11,734	July 13	18	65
Umbrella-handles.....	F. J. Kaldenberg.....	11,865			
Upholstery-trimmings.....	L. Lindenthal.....	11,865	July 13	18	65
Urn. Tea.....	E. A. Bixler.....	11,964	Sept. 14	18	575
Vase and pedestal.....	W. Bayley.....	11,677	Mar. 9	17	513
Wall-paper.....	E. Leissner.....	{ 11,985 }	Oct. 26	18	957
Wall-paper.....	E. Leissner.....	to			
Wall-paper.....	E. Leissner.....	11,995	Nov. 2	18	985
Wall-paper.....	E. Leissner.....	12,009			
Wall-paper.....	E. Leissner.....	to	Nov. 2	18	985
Wall-paper.....	E. Leissner.....	12,014			
Wall-paper.....	E. Leissner.....	12,038	Nov. 23	18	1181
Wall-paper.....	E. Leissner.....	12,048	Nov. 30	18	1227
Watch-chain attachment.....	S. R. Mace.....	11,668	Mar. 2	17	455
Watch-chain attachment or end piece.....	E. F. Nortemann.....	11,665	Mar. 2	17	455
Watch-crowns.....	E. Hunziker.....	11,689	Mar. 16	17	573
Woven fabrics.....	E. Maertens.....	11,618	Jan. 27	17	154
Woven fabrics.....	J. B. Ryer.....	11,580	Jan. 13	17	62





# ALPHABETICAL LIST OF REISSUES.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Specification.	Drawing.	Volume.	Page.
Addressing-machine .....	R. Dick .....	9,282	July 6	332	92	18	57
Air-engine .....	J. Ericsson .....	9,414	Oct. 12	659	{ 181 182 }	18	855
Air-engine .....	A. K. Rider .....	9,353	Aug. 24	1202	336	18	462
Aluminous cake. Manufacture of .....	F. Lanr .....	9,340	Aug. 10	626	.....	18	356
Asphalt road and pavement .....	E. J. De Smedt .....	9,325	July 27	1326	.....	18	240
Auger. Hollow .....	J. H. Smith .....	9,130	Mar. 30	1394	393	17	734
Auger. Hollow .....	J. H. Smith .....	9,131	Mar. 30	1396	393	17	734
Auger. Hollow .....	G. N. Stearns .....	9,293	July 13	689	192	18	121
Axle box. Car .....	A. Higley .....	9,295	July 13	692	193	18	122
Axle box. Car .....	T. V. Le Roy .....	9,084	Feb. 17	919	{ 262 263 }	17	386
Baling-press .....	P. K. Dederick .....	9,212	May 25	1254	355	17	1212
Ball-trap .....	I. A. Paine .....	9,042	Jan. 13	514	139	17	102
Barrel-washer .....	G. Schock .....	9,259	June 15	1066	272	17	1398
Barrels. Rack for tiering .....	F. Stitzel .....	9,175	Apr. 27	1144	313	17	965
Bed. Extension sofa .....	W. H. Lotz .....	9,215	May 25	1259	356	17	1213
Bedstead. Folding .....	S. S. Burr .....	9,393	Sept. 28	1117	305	18	731
Beer, &c. Treating .....	F. C. Mnssgiller and R. W. Schedler .....	9,129	Mar. 23	1100	.....	17	674
Belting. Machinery for stretching leather .....	J. Brady .....	9,059	Jan. 27	939	251	17	190
Berth for vessels. Self-leveling .....	D. Huston .....	9,224	June 1	303	85, 86	17	1275
Boat-knee. Dory .....	E. G. Matthews .....	9,069	Feb. 17	930	265	17	383
Boiler-furnace .....	W. M. Fisher .....	9,492	Dec. 7	324	90	18	1336
Book-binding .....	F. S. Hasbrouck .....	9,275	July 6	324	90	18	56
Book. Blank .....	J. C. Bonnell .....	9,249	June 15	992	269	17	1395
Book. Blank .....	I. Reynolds .....	9,503	Dec. 21	967	269	18	1459
Book-case. Revolving .....	J. Danner .....	9,033	Jan. 6	266	70	17	48
Boot and shoe .....	J. M. Hunter .....	9,034	Jan. 6	268	70	17	49
Boot and shoe .....	J. M. Hunter .....	9,035	Jan. 6	270	70	17	49
Boot and shoe counter support .....	W. H. Van Wormer .....	9,030	Jan. 6	262	69	17	48
Boot and shoe sole trimming machine .....	B. J. Tayman .....	9,073	Feb. 10	613	177	17	324
Boot and shoe soles. Machinery for shaping .....	J. B. Johnson .....	9,245	June 8	692	{ 189 190 }	17	1344
Boot and shoe soles. Mechanism for abrading and polishing .....	J. A. Ambler .....	9,504	Dec. 21	968	269	18	1459
Boot and shoe stiffener. Metallic .....	J. Barsaloux .....	9,198	May 11	600	172	17	1088
Boot and shoe toe protector .....	J. A. Stockwell .....	9,514	Dec. 21	979	272	18	1461
Boot-leg-finishing machine .....	M. V. B. Ethridge .....	9,098	Feb. 24	1184	339	17	444
Boot-treering machine .....	J. E. Crisp .....	9,055	Jan. 20	715	{ 192 193 }	17	144
Boot-treering machine .....	J. E. Crisp .....	9,124	Mar. 23	1091	312	17	673
Boots and shoes. Machine for turning channel-flaps for .....	W. E. Fischer .....	9,372	Sept. 7	270	74	18	569
Boots and shoes. Manufacture of .....	L. R. Blake .....	9,043	Jan. 13	515	139	17	102
Boring-machine .....	G. Gardner .....	9,114	Mar. 9	561	162	17	563
Bottle-box .....	J. Matthews .....	9,090	Feb. 17	930	265	17	388
Bottle-stopper .....	J. Morschhauser .....	9,521	Dec. 23	1344	368	18	1527
Bracelet .....	H. Carlisle, Jr .....	9,482	Nov. 30	1549	416	18	1273
Bracelet .....	A. W. Magerhans .....	9,192	May 4	297	86	17	1027
Bracket-stand .....	A. B. Denison .....	9,517	Dec. 23	1340	367	18	1526
Braid, &c. Device for holding coils of .....	S. B. Fleisher .....	9,018	Jan. 6	248	66	17	45
Braid, &c. Device for holding coils of .....	S. B. Fleisher .....	9,019	Jan. 6	249	66	17	45
Brush .....	F. Sprower .....	9,160	Apr. 13	527	146	17	846
Buckle. Harness .....	I. L. Landis .....	9,088	Feb. 17	929	265	17	388
Buckwheat-hulling machine .....	T. Nelson .....	9,161	Apr. 13	528	{ 146 147 }	17	846
Bung .....	J. Kirby .....	9,107	Mar. 2	256	72	17	501
Butter worker and mold. Combined .....	H. I. Carver .....	9,092	Feb. 24	1176	337	17	442
Button. Sleeve .....	J. Caldwell and H. B. Winslow .....	9,410	Nov. 9	670	182	18	1106
Cake-cutting machine .....	J. F. S. Smith .....	9,377	Sept. 14	536	148	18	622
Cake-machine .....	D. M. Holmes .....	9,062	Feb. 3	327	94	17	257
Calendar .....	F. Ratcliff .....	9,390	Sept. 23	1113	304	18	731
Canal lock and dam .....	G. W. Parsons .....	9,345	Aug. 17	913	257	18	409
Cane-juice. Apparatus for bleaching .....	J. M. Lescalo .....	9,045	Jan. 13	519	140	17	103
Canning of oysters. Process preliminary to the .....	J. T. Maybry .....	9,509	Dec. 21	974	.....	18	1460
Cans. Apparatus for sealing fruit .....	E. K. and J. M. Bruce .....	9,025	Jan. 6	255	68	17	46
Car basket-rack. Railway .....	W. G. Creamer .....	9,238	June 8	681	157	17	1342
Car-brake shoe .....	J. F. Curtice .....	9,329	Aug. 3	297	84	18	296
Car-coupling .....	L. P. Bayliff and W. Harrod .....	9,063	Feb. 3	328	94	17	258
Car-coupling .....	R. F. Färlie .....	9,147	Apr. 13	508	143	17	842
Car-coupling .....	A. Kimber .....	9,214	May 25	1258	356	17	1213
Car door. Freight .....	D. F. Van Liew .....	9,219	May 25	1267	358	17	1215
Car-lighting apparatus. Railway .....	I. F. Randolph .....	9,037	Jan. 6	271	71	17	49
Car-starter .....	J. R. Johns .....	9,138	Apr. 6	257	75	17	793
Car-step .....	M. E. Skeritt .....	9,203	June 22	1281	352	17	1446
Carding-engines. Condensing-cylinder for .....	J. Greaves .....	9,477	Nov. 23	1279	343	18	1222
Carding-machine .....	G. Estes .....	9,457	Nov. 9	684	185	18	1109
Carpet-exhibitor .....	A. Peterson .....	9,522	Dec. 23	1345	368	18	1528
Carriage-bow .....	I. N. Topliff .....	9,026	Jan. 6	256	68	17	47
Carriage shifting seat .....	C. K. Mellinger .....	9,520	Dec. 23	1343	368	18	1527
Carriage-top .....	E. S. Scripture .....	9,230	June 1	315	87	17	1277

*Alphabetical list of reissues—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. r.	Vol.	Page.
Carriage top. Landan.....	H. Lines .....	9,117	Mar. 16	821	240	17	619
Cartridges. Priming metallic.....	J. F. Cranston .....	9,453	Nov. 9	679	184	18	1108
Chain. Drive.....	W. D. Ewart .....	9,256	June 15	1001	272	17	1397
Chair-seat.....	G. Gardner .....	9,094	Feb. 24	1178	337	17	442
Chair-seat.....	G. A. Watkins.....	9,021	Jan. 6	251	67	17	46
Chandelier. Extension.....	L. Brauer.....	9,024	Jan. 6	254	67	17	46
Cheese-hoop.....	M. B. Fraser.....	9,375	Sept. 14	534	148	18	621
Cheese-press.....	M. B. Fraser.....	9,228	June 1	308	86	17	1276
Churn.....	E. Rhoades .....	9,225	June 1	305	86	17	1275
Churn. Rotary.....	A. J. Borland.....	9,338	Aug. 10	624	176	18	355
Cider-mill.....	S. Males.....	9,508	Dec. 21	974	270	18	1460
Clasp.....	J. H. Eastman.....	9,194	May 11	597	171	17	1087
Clasp.....	E. S. Smith.....	9,336	Aug. 3	304	86	18	298
Clock. Electric-circuit-breaking.....	E. Holmes.....	9,209	May 18	921	263	17	1149
Cloth-finishing machine.....	D. C. Sumner.....	9,265	June 29	1627	448	17	1500
Cloth-pressing machine.....	E. Gessner.....	9,076	Feb. 17	905	259	17	384
Cloth-pressing machine.....	E. Gessner.....	9,077	Feb. 17	907	259	17	384
Cloth-shearing machine.....	D. C. Sumner.....	9,188	May 4	293	85	17	1026
Coal-box and fire-iron holder.....	A. F. Tripp.....	9,267	June 29	1629	449	17	1501
Coal-breaker tooth.....	S. Broadbent.....	9,456	Nov. 9	683	185	18	1109
Cock. Automatic cylinder.....	G. F. Hammer.....	9,058	Jan. 27	937	250	17	189
Coffee and nut roaster.....	W. E. Vernon.....	9,260	June 15	1006	273	17	1398
Collar fastening. Horse.....	S. J. Bowers.....	9,448	Nov. 9	669	182	18	1106
Collar sweat-pad. Horse.....	E. R. Jones.....	9,519	Dec. 28	1342	368	18	1527
Confections. Apparatus for dipping and coating.....	W. C. Murdock and E. K. Haynes.....	9,256	July 6	338	93	18	58
Core anchor and stud.....	C. D. Woodruff.....	9,103	Mar. 2	253	71	17	500
Corset.....	C. A. McGee.....	9,496	Dec. 7	330	91	18	1337
Corsets. Manufacture of.....	J. C. Tallman.....	9,137	Mar. 30	1404	395	17	736
Cotton and hay press.....	G. W. Soule.....	9,193	May 4	298	87	17	1027
Cotton-cleaner.....	W. Herrmann.....	9,349	Aug. 24	1196	335	18	460
Cotton-condenser.....	T. Camp.....	9,234	June 8	676	186	17	1341
Counter. Alarm.....	G. Miller and J. Reichert.....	9,177	Apr. 27	1146	313	17	966
Cracker-machine.....	J. Parr.....	9,434	Oct. 26	1284	359 360	18	977
Cracker-machine.....	C. L. Vale.....	9,151	Apr. 13	513	144	17	843
Crocheting-machine for making looped fabrics.....	C. Young.....	9,447	Nov. 2	351	96, 97	18	1046
Cultivator.....	A. H. Allison.....	9,085	Feb. 17	920	263	17	386
Cultivator.....	D. Gupta.....	9,087	Feb. 17	928	264	17	387
Cultivator. Rotary.....	M. Johnson.....	9,168	Apr. 20	798	222	17	901
Cultivator. Rotary.....	M. Johnson.....	9,169	Apr. 20	800	223	17	901
Cultivator. Wheel.....	J. H. Rbamy.....	9,511	Dec. 21	976	271	18	1460
Curtain-fixture.....	H. Herlt.....	9,184	May 4	287	84	17	1025
Cutter-head.....	G. J. Shimer.....	9,403	Oct. 12	638	177	18	852
Dental-engine hand-piece.....	J. W. Gilbert.....	9,443	Nov. 2	346	95	18	1045
Dental plugger.....	G. B. Snow.....	9,248	June 8	698	191	17	1345
Dental plugger. Electro-magnetic.....	W. G. A. Bonwill.....	9,287	July 13	680	191	18	120
Desk. Cabinet.....	J. A. Moore.....	9,402	Oct. 12	637	176	18	852
Disinfecting apparatus for water-closets, &c.....	E. J. Mallett, Jr.....	9,068	Feb. 10	607	176	17	323
Ditcher and scraper. Combined.....	G. Palmer.....	9,344	Aug. 17	912	257	18	409
Door-hanger.....	A. N. Monteer.....	9,174	Apr. 27	1144	313	17	965
Drill-jar.....	R. McMullen.....	9,072	Feb. 10	612	177	17	324
Dye-stuff or coloring-matter.....	H. Caro.....	9,144	Apr. 6	264	.....	17	794
Ejector.....	H. Coll.....	9,199	May 18	901	257	17	1146
Ejector. Steam-operated water.....	H. Coll.....	9,380	Sept. 21	847	236	18	680
Electric machine. Dynamo.....	S. D. Field.....	9,458	Nov. 9	685	185	18	1109
Embroidering-machines. Jacquard attachment for.....	M. Umstadter.....	9,470	Nov. 16	1033	276	18	1175
Embroidering-machines. Jacquard attachment for.....	M. Umstadter.....	9,471	Nov. 16	1035	276	18	1176
Explosive compound.....	A. Monnier.....	9,173	Apr. 27	1142	.....	17	965
Eyeglasses.....	J. Schaffer.....	9,460	Nov. 9	689	186	18	1110
Eyelet. Carriage-curtain.....	C. W. Acker.....	9,029	Jan. 6	261	69	17	47
Fabric.....	D. C. Sumner.....	9,266	June 29	1629	449	17	1501
Fabrics. Machinery for tentering and straightening.....	I. E. Palmer.....	9,452	Nov. 9	675	183 184	18	1107
Fan.....	M. Rubin.....	9,159	Apr. 13	525	146	17	845
Fare-register.....	W. H. Hornum.....	9,371	Sept. 7	265	73, 74	18	568
Fare-register.....	W. H. Hornum.....	9,489	Dec. 7	316	89	18	1334
Feed-water heater and pump. Combined.....	D. E. Rice.....	9,476	Nov. 23	1279	343	18	1221
Fence. Barbed.....	W. G. Collins.....	9,211	May 25	1253	355	17	1212
Fence builder. Wire.....	W. A. Newton.....	9,120	Mar. 16	827	241	17	620
Fence-wire. Barbed.....	J. Haish.....	9,036	Jan. 6	271	71	17	49
Fence-wire. Machine for making barbed.....	H. W. Putnam.....	9,485	Nov. 30	1552	417 418	18	1274
Fire-arm. Breech-loading.....	I. M. Milbank.....	9,405	Oct. 12	642	178	18	852
Fire-arm. Breech-loading.....	C. E. Snider.....	9,166	Apr. 20	795	222	17	900
Fire-arm. Magazine.....	N. King.....	9,157	Apr. 13	522	145	17	844
Fire-arm. Magazine.....	H. F. Wheeler.....	9,461	Nov. 9	690	186	18	1110
Fire-arm. Revolving.....	B. H. Williams.....	9,261	June 15	1007	273	17	1398
Fire-extinguisher.....	C. T. Holloway.....	9,271	June 29	1636	450	17	1502
Fire-extinguisher.....	S. M. Lillio.....	9,023	Jan. 6	252	67	17	46
Fire-extinguisher.....	H. S. Parmelee.....	9,352	Aug. 24	1200	336	18	461
Fire-extinguisher.....	A. J. Sparrow.....	9,397	Oct. 5	320	88	18	791
Fire-kindler.....	C. H. Hayden.....	9,201	May 18	905	258	17	1146
Flue-cleaner. Steam.....	E. Atherton.....	9,136	Mar. 30	1403	395	17	735
Fluted fabrics. Machine for creasing.....	J. H. Brown.....	9,071	Feb. 10	610	177	17	324
Fluting-machine.....	H. Albrecht.....	9,129	Mar. 23	1098	312	17	674
Friction-drum.....	J. S. Mundy.....	9,287	July 13	684	191	18	120
Fulling-mill.....	R. Eickemeyer.....	9,146	Apr. 13	504	142 143	17	841
Furnaces. Lining.....	A. S. Dunning.....	9,444	Nov. 2	348	95	18	1045
Garter.....	W. S. Wardwell.....	9,143	Apr. 6	263	77	17	794
Gas-heater.....	H. Y. Lazear and J. L. Sharp.....	9,333	Aug. 3	302	86	18	297
Gears. Machine for cutting the teeth of metal.....	W. Gleason.....	9,468	Nov. 16	1028	275	18	1174
Gears. Machine for cutting the teeth of wooden.....	W. Gleason.....	9,469	Nov. 16	1031	276	18	1175
Gearing. Endless-belt.....	J. Parr.....	9,135	Mar. 30	1401	394	17	735

## Alphabetical list of reissues—Continued.

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Gelatine or ichthyocolla from salted fish-skins. Extracting	J. S. Rogers	9,226	June 1	306	.....	17	1276
Gelatine or ichthyocolla from salted fish-skins. Extracting	J. S. Rogers	9,296	July 13	693	.....	18	122
Gem-setting	V. Draper	9,154	Apr. 13	517	145	17	844
Glass. Manufacture of	F. Siemens	9,418	Oct. 19	984	{ 272 273 }	18	916
Governor. Steam	G. E. Noyes	9,196	May 11	598	171	17	1087
Governor. Steam-engine	F. W. Robinson	9,306	July 20	1041	294	18	186
Grain-binder	S. D. Locke	9,102	Mar. 2	250	70, 71	17	500
Grain-binder	J. H. Mudgett	9,280	July 6	330	91	18	57
Grain-drill	J. P. Fulgham	9,341	Aug. 10	627	177	18	356
Grain-drill	E. Kuhns	9,066	Feb. 3	332	95	17	258
Grain-drill	B. Regan	9,339	Aug. 10	624	176	18	355
Grain-header	A. J. Hodges	9,040	Jan. 13	512	138	17	101
Grain-meter	J. W. Hill	9,213	May 25	1256	356	17	1213
Grain-separator. Magnetic	C. E. Fritz	9,229	June 1	310	87	17	1276
Grinding-mill	S. C. Schofield	9,109	Mar. 2	258	73	17	502
Gum. Chewing	T. Adams	9,152	Apr. 13	515	.....	17	843
Harness	C. S. Piersons	9,187	May 4	291	85	17	1026
Harrow	R. N. Bennett	9,430	Oct. 26	1279	358	18	976
Harrow	D. L. Garver	9,148	Apr. 13	509	143	17	842
Harrow	J. E. Marshall	9,495	Dec. 7	329	91	18	1337
Harvester	H. A. Adams	9,268	June 29	1630	449	17	1501
Harvester	J. H. Elward	9,179	Apr. 27	1149	314	17	966
Harvester	A. J. Hodges	9,279	July 6	329	91	18	56
Harvester	J. and E. Fanton	9,239	June 8	682	187	17	1342
Harvester	H. W. Pell	9,326	Aug. 3	294	84	18	296
Harvester	W. F. Randolph	9,276	July 6	326	90	18	56
Harvester rake and reel. Combined	W. A. Kirby	9,240	June 8	684	188	17	1343
Hat and cap sweat-band	T. W. Bracher	9,331	Aug. 3	299	85	18	297
Hat-pouncing machine	W. Keenan	9,125	Mar. 23	1036	312	17	674
Hay and straw press	L. Kirk	9,350	Aug. 24	1197	335	18	460
Hay-knife	J. Offineer	9,335	Aug. 3	304	86	18	297
Hay-rake. Horse	C. B. Holden	9,133	Mar. 30	1397	394	17	734
Hay-rake. Horse	G. M. and C. C. Richardson	9,258	June 15	1004	272	17	1397
Head-light. Locomotive	W. Westlake	9,186	May 4	290	84, 85	17	1020
Hedge. Plashed	D. M. Kirkbride	9,415	Oct. 12	661	182	18	856
Hoisting apparatus	C. E. Albro	9,153	Apr. 13	515	144	17	843
Hoisting apparatus	C. R. and N. P. Otis	9,128	Mar. 23	1099	313	17	674
Hoisting-engine	F. Murgatroyd	9,378	Sept. 14	538	149	18	622
Hoisting-machine	L. H. Hall	9,095	Feb. 24	1179	338	17	443
Horse-power	D. S. and J. D. Heehner	9,488	Dec. 7	315	88	18	1334
Horse-rake	T. S. Brown	9,505	Dec. 21	970	269	18	1459
Horse-rake	J. H. Thomas	9,373	Sept. 7	271	74	18	569
Horse-rake and hay-spreader	G. N. Palmer	9,050	Jan. 20	706	{ 190 191 }	17	142
Horse-rake and hay-spreader. Combined	G. N. Palmer	9,180	Apr. 27	1153	{ 314 315 }	17	967
Horse-rake and hay-spreader. Combined	G. N. Palmer	9,181	Apr. 27	1157	315	17	968
Horse-toe-weight and quarter-boot attachment	H. D. McKinney	9,163	Apr. 20	792	221	17	900
Horseshoe-blanks. Manufacture of	J. R. Williams	9,111	Mar. 9	555	160	17	562
Hose-coupling clamp	O. T. Earle	9,041	Jan. 13	513	138	17	101
Hose. Cut	J. Bigelow	9,113	Mar. 9	560	162	17	563
Hose-nozzle	I. W. McGaffey	9,081	Feb. 17	914	261	17	385
Hose. Vulcanizing rubber	J. H. Cheever	9,210	May 25	1251	.....	17	1212
Hot-air engine	A. K. Rider	9,359	Aug. 31	1505	422	18	515
Hub. Vehicle-wheel	J. V. Woolsey	9,433	Oct. 26	1283	359	18	977
Indicator-lock	F. W. Mix	9,462	Nov. 9	692	186	18	1110
Indicator-lock	H. L. Russell	9,300	July 13	699	195	18	123
Injector	W. Sellers and J. S. Bancroft	9,407	Oct. 12	644	178	18	853
Ink. Manufacture of printing	J. Kircher	9,126	Mar. 23	1096	.....	17	674
Insulator. Telegraph	J. L. Finn	9,484	Nov. 30	1551	417	18	1273
Insulators. Forming	J. M. Brookfield	9,392	Sept. 28	1115	305	18	731
Knitting-needles. Machine for making the tongues of machine	W. Aiken	9,206	May 18	916	261	17	1148
Knob attachment	W. H. Gonne	9,101	Mar. 2	250	70	17	500
Lamp and holder	G. W. Hadfield and F. E. Clark	9,423	Oct. 19	989	274	18	918
Lamp-burner	H. J. White	9,498	Dec. 7	333	92	18	1338
Lamp. Carriage	F. C. Cannon	9,328	Aug. 3	296	84	18	296
Lance. Bomb	E. Pierce	9,356	Aug. 24	1206	337	18	462
Lantern	J. H. Miltimore	9,422	Oct. 19	988	274	18	917
Lantern	J. Trent	9,191	May 4	296	86	17	1027
Lantern-globe	T. Walton	9,515	Dec. 21	981	272	18	1461
Laps. Arrangement of apparatus for and process of forming	J. Batty	9,413	Oct. 12	658	181	18	855
Lead-fumes. Refining	G. T. Lewis and E. O. Bartlett	9,442	Nov. 2	345	95	18	1044
Leather. Device for automatically measuring the superficial area of sides of	F. F. Tapley and C. H. Porter	9,204	May 18	911	{ 259 260 }	17	1147
Leather splitting and beveling machinery	C. Dancel and E. C. Smith	9,235	June 8	677	186	17	1342
Letter-sheet and envelope	W. T. Berry	9,171	Apr. 27	1139	312	17	965
Lifting-jack	J. S. Kirkwood	9,065	Feb. 3	330	95	17	258
Lightning-rod coupling	E. C. Bacon	9,145	Apr. 13	503	142	17	841
Liquid-cooler for cooling liquids under pressure	E. Bigelow	9,272	June 29	1637	451	17	1502
Liquid-cooler for cooling liquids under pressure	E. Bigelow	9,273	June 29	1638	451	17	1502
Liquid-cooler for cooling liquids under pressure	E. Bigelow	9,274	June 29	1639	451	17	1502
Locomotive exhaust apparatus	E. Longstreth	9,389	Sept. 28	1112	304	18	731
Log-turner	J. Torrent	9,291	July 13	687	192	18	121
Loom	J. C. Duckworth	9,270	June 29	1633	450	17	1501
Loom	J. Lyall	9,049	Jan. 20	703	190	17	141
Loom-harness	D. C. Brown	9,220	May 25	1269	358	17	1216
Loom-heddle	S. Sewall, Jr	9,446	Nov. 2	349	96	18	1045
Loom-shuttle spindle	J. Hamilton	9,093	Feb. 24	1177	337	17	442
Lounge. Extension	C. Streit	9,099	Feb. 24	1185	339	17	444
Lozenge-cutting machine	W. E. Damant	9,060	Jan. 27	940	251	17	190

*Alphabetical list of reissues—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Lubricator .....	J. E. Lonergan .....	9,164	Apr. 20	793	221	17	900
Lumber-drier .....	E. J. Sumner .....	9,309	July 20	1045	235 296	18	187
Magneto-electric machine .....	C. F. Brush .....	9,410	Oct. 12	652	179 180	18	854
Magneto-electric machine .....	E. Bürgin .....	9,438	Nov. 2	340	94	18	1043
Mail-box .....	J. Sherriff .....	9,253	June 15	996	270	17	1396
Malt extract .....	J. Carnrick .....	9,075	Feb. 17	905		17	384
Mashing and mixing brewer's mash. Machine for .....	C. Stoll .....	9,080	Feb. 17	912	261	17	385
Mattress-frame. Woven-wire .....	D. J. Powers .....	9,105	Mar. 2	254	71	17	501
Mattresses. Tightening device for woven-wire .....	D. J. Powers .....	9,104	Mar. 2	253	71	17	501
Meat-chopper .....	H. P. Rankin .....	9,182	Apr. 27	1160	315	17	968
Metal-worker's tool .....	S. G. Wilcox .....	9,064	Feb. 3	329	95	17	258
Middlings-separating machine .....	A. and A. N. Wolf .....	9,170	Apr. 20	802	223	17	902
Milk-cooler .....	F. W. Mosley .....	9,156	Apr. 13	519	145	17	844
Milk-setting apparatus .....	F. G. Butler .....	9,302	July 20	1037	293	18	185
Millstone-balancing device .....	L. Read .....	9,091	Feb. 24	1175	337	17	442
Mining-machine .....	F. M. Lechner .....	9,507	Dec. 21	972	270	18	1460
Mining machine. Coal .....	J. W. Harrison .....	9,408	Oct. 12	647	179	18	853
Mining machine. Coal .....	J. W. Harrison .....	9,439	Nov. 2	341	94	18	1044
Molding-machine .....	H. Buchter .....	9,358	Aug. 31	1503	421	18	514
Mortising-machine .....	E. H. N. Clarkson .....	9,221	June 1	300	85	17	1275
Motion. Machine for transmitting .....	C. P. Grout .....	9,284	July 6	334	92	18	57
Mowing-machine .....	M. R. Shalters and S. Ray .....	9,381	Sept. 21	848	236	18	680
Mowing-machine .....	D. Wolf .....	9,216	May 25	1260	357	17	1213
Mowing-machine .....	D. Wolf .....	9,302	Aug. 31	1511	423	18	516
Nailing-machine .....	L. Goddu .....	9,299	July 13	695	194	18	122
Nuts. Cleaning and separating .....	B. F. Walters .....	9,361	Aug. 31	1509	423	18	516
Oil-cans. Nozzle-stopper for .....	J. H. Noyes .....	9,398	Oct. 5	321	89	18	791
Oil-cloth, &c. Metallic binding for .....	D. M. Knowles .....	9,330	Aug. 3	298	85	18	296
Oil. Transportation can and box for .....	H. B. Everest and A. P. Ross .....	9,017	Jan. 6	247	66	17	45
Ore-roasting furnace .....	J. Winterburn .....	9,454	Nov. 9	679	184	18	1108
Ores. Chlorinating .....	J. H. Mears .....	9,203	May 18	910		17	1147
Organ. Reed .....	M. J. Matthews .....	9,218	May 25	1263	357	17	1214
Organ. Reed .....	G. Woods .....	9,308	July 20	1044	295	18	186
Organs. Octave and manual compuler for .....	W. D. Parker .....	9,497	Dec. 7	330	91	18	1337
Oven and oven-door .....	W. C. Davis .....	9,243	June 8	690	189	17	1344
Packing. Piston .....	M. Schneble .....	9,365	Aug. 31	1515	424	18	517
Pails, safes, &c. Non-conducting filling for dinner .....	O. M. Spiller .....	9,483	Nov. 30	1551	416	18	1273
Paint. Distemper .....	C. G. Dodge, Jr. .....	9,411	Oct. 12	656		18	855
Pannier .....	M. A. Bryson .....	9,178	Apr. 27	1148	314	17	966
Pantaloons and other garments .....	E. Spies .....	9,038	Jan. 6	272	71	17	49
Paper-bag machine .....	A. B. Glover .....	9,428	Oct. 19	996	276	18	919
Paper-bag machine .....	M. E. Knight .....	9,202	May 18	906	259	17	1146
Paper, cloth, &c. Coating and ornamenting the surfaces of .....	F. Beck .....	9,473	Nov. 23	1275		18	1221
Paper-cutting machine .....	J. Levisness and P. Vanhorn .....	9,054	Jan. 20	713	192	17	143
Paper-cutting machine .....	E. R. and T. W. Sheridan .....	9,115	Mar. 9	562	162 163	17	563
Paper feeding and cutting machines. Stop mechanism for .....	G. Keeble .....	9,262	June 22	1279	352	17	1446
Paper-perforating machine .....	R. T. Smith .....	9,429	Oct. 19	1001	277	18	920
Paper-pulp. Machine for separating the fibers of wood for .....	P. and G. C. Rose .....	9,110	Mar. 9	555	160	17	562
Passenger-register .....	J. B. Benton .....	9,312	July 20	1047	296 297	18	187
Passenger-register .....	J. B. Benton .....	9,313	July 20	1052	298	18	188
Pavement. Concrete .....	D. W. Bailey .....	9,207	May 18	917	262	17	1149
Pavements or roads. Laying asphalt or concrete .....	E. J. De Smedt .....	9,324	July 27	1325		18	239
Peanuts. Mode of and apparatus for cleaning and polishing .....	B. F. Walters .....	9,360	Aug. 31	1507	422	18	515
Pegging-machine .....	L. Goddu .....	9,315	July 20	1056	298 299	18	188
Pen .....	D. Mackinnon .....	9,376	Sept. 14	535	148	18	622
Photographic head-rest .....	W. Kenyon .....	9,451	Nov. 9	673	183	18	1107
Photographic images. Producing .....	D. N. Carvalho .....	9,384	Sept. 21	853		18	681
Piano-case .....	G. Woods .....	9,412	Oct. 12	657	180 181	18	855
Piano-forte .....	C. F. T. Steinway .....	9,431	Oct. 26	1280	358 359	18	976
Piano-string bridge .....	W. C. Ellis .....	9,237	June 8	680	187	17	1342
Picture-frame. Easel .....	R. Wright .....	9,281	July 6	331	92	18	57
Picture-nail .....	A. D. Judd .....	9,440	Nov. 2	343	94	18	1044
Pigments. Manufacture of white .....	H. Knight .....	9,481	Nov. 30	1549		18	1273
Pile-driver .....	J. Huy .....	9,057	Jan. 27	936	250	17	189
Plaited puffing. Machine for making .....	S. E. Barney .....	9,391	Sept. 28	1114	305	18	731
Planter. Corn .....	A. H. Fessenden .....	9,044	Jan. 13	517	139	17	102
Plow .....	M. Johnson .....	9,031	Jan. 6	263	69	17	43
Plow .....	M. Johnson .....	9,032	Jan. 6	264	70	17	48
Plow .....	H. Wiard .....	9,189	May 4	294	86	17	1037
Plow .....	H. Wiard .....	9,190	May 4	295	86	17	1037
Plow-point. Reversible .....	M. M. Bowers .....	9,236	June 8	679	187	17	1342
Plow. Side-hill .....	W. Strait .....	9,116	Mar. 9	563	163	17	564
Plow. Sulky .....	W. A. James .....	9,501	Dec. 21	962	268	18	1458
Portable and road engine .....	B. Yoch .....	9,052	Jan. 20	710	191	17	143
Post and pile driver .....	W. A. Newton .....	9,119	Mar. 16	826	241	17	620
Pressure regulator. Fluid .....	N. C. Locke .....	9,466	Nov. 16	1026	274	18	1174
Printing machine. Plate .....	C. A. Guy .....	9,317	July 20	1064	299 300	18	190
Printing-press .....	E. L. Gilman .....	9,346	Aug. 17	915	257	18	409
Puddling and heating furnace .....	W. Stubblebine .....	9,140	Apr. 6	260	77	17	794
Puddling-furnace .....	W. L. Reynolds and D. Thomas .....	9,139	Apr. 6	258	76	17	793
Pump .....	R. E. Strait .....	9,327	Aug. 3	294	84	18	296
Pump. Double-acting .....	R. Bean .....	9,475	Nov. 23	1278	342	18	1221
Pump-valve .....	A. K. Rider .....	9,388	Sept. 28	1110	304	18	730



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Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr. g.	Vol.	Page.
Pumps. Seating foot-valves in.....	J. A. Newell and A. Lucasse .....	9,334	Aug. 3	303	86	18	297
Quartz, &c. Method of and apparatus for pulverizing and separating metalliferous	S. F. Hodge .....	9,053	Jan. 20	712	192	17	143
Quartz-mill feeder.....	T. A. Cochrane .....	9,048	Jan. 20	702	189	17	141
Quilting-machine .....	A. Beck .....	9,097	Feb. 24	1181	{ 338 339 }	17	443
Railway draw-bar.....	D. S. Beals .....	9,401	Oct. 12	636	176	18	851
Railway. Portable .....	N. W. Condict, Jr. ....	9,298	July 13	694	193	18	122
Railway tie and fastening .....	H. Reese .....	9,292	July 13	688	192	18	121
Railway-track scraper .....	S. A. Otis .....	9,445	Nov. 2	348	96	18	1045
Railway-wheels. Manufacturing cast chilled .....	W. G. Hamilton .....	9,487	Dec. 7	314	.....	18	1333
Refrigerator .....	J. Matthews .....	9,132	Mar. 30	1397	393	17	734
Registering apparatus .....	J. Bennor and P. Pond .....	9,118	Mar. 16	822	{ 240 241 }	17	619
Rendering fats. Process and apparatus for .....	W. E. Andrew .....	9,254	June 15	997	271	17	1396
Rivet and screw blanks. Machine for heading .....	V. D. Upham .....	9,027	Jan. 6	257	68	17	47
Rocking-chair .....	C. Streit .....	9,046	Jan. 13	520	140	17	103
Rolling-machine. Metal .....	H. Kellogg .....	9,385	Sept. 21	855	237	18	681
Roof. Composite .....	S. L. Foster and W. H. Benton .....	9,314	July 20	1054	298	18	188
Rowlock .....	M. F. Davis .....	9,269	June 29	1631	449	17	1501
Ruling machines. Printing attachment for paper .....	J. E. Taylor .....	9,141	Apr. 6	261	77	17	794
Sad-iron .....	M. F. Potts .....	9,020	Jan. 6	250	66	17	46
Safe .....	T. Heineman .....	9,305	July 20	1040	294	18	186
Sash-cord guide .....	E. H. N. Clarkson .....	9,222	June 1	302	85	17	1275
Saw. Circular .....	J. K. Lockwood .....	9,197	May 11	599	172	17	1088
Saw-mill .....	A. P. Barlow .....	9,122	Mar. 23	1090	311	17	672
Saw-mill head-block .....	J. Cain .....	9,074	Feb. 17	903	258	17	384
Saw-mill head-block .....	J. S. Everitt and C. H. Avery .....	9,217	May 25	1262	357	17	1214
Saw-mill head-block .....	J. Hubbell .....	9,078	Feb. 17	908	{ 259 260 }	17	384
Scraper. Road .....	H. C. Moore .....	9,417	Oct. 19	982	272	18	916
Scraper. Rotary road .....	J. W. Wilson .....	9,150	Apr. 13	511	144	17	843
Screw-press die-holder .....	J. McWilliams .....	9,123	Mar. 23	1091	311	17	673
Screws. Machine for making machine .....	F. Curtis .....	9,086	Feb. 17	922	{ 263 264 }	17	387
Screws. Machine for making metal .....	C. M. Spencer .....	9,290	July 13	685	192	18	120
Seed-drills. Drill-point for .....	J. A. Jones .....	9,165	Apr. 20	794	221	17	900
Sewing-machine .....	J. Bigelow .....	9,112	Mar. 9	557	{ 161 162 163 }	17	563
Sewing-machine .....	T. Crane .....	9,208	May 18	919	{ 262 263 }	17	1149
Sewing-machine .....	S. French .....	9,450	Nov. 9	671	183	18	1106
Sewing-machine .....	W. A. Rayer and W. S. Lincoln .....	9,176	Apr. 27	1145	313	17	966
Sewing-machine .....	S. M. Tyler .....	9,079	Feb. 17	910	260	17	385
Sewing-machine and trimming device therefor .....	J. E. Wiggin .....	9,056	Jan. 20	718	194	17	144
Sewing machine. Glove .....	H. P. Henriksen .....	9,039	Jan. 13	508	{ 137 138 }	17	100
Sewing-machines. Device for guiding and feeding } straw-braid .....	H. Plummer .....	9,082	Feb. 17	915	{ 261 262 }	17	386
Sewing-machines. Feeding device for straw-braid .....	H. Plummer .....	9,083	Feb. 17	918	262	17	386
Sewing sweat-linings into hats .....	R. Eickemeyer .....	9,322	July 27	1323	372	18	239
Shavings. Machine for grinding .....	I. and A. G. Tompkins .....	9,383	Sept. 21	851	237	18	681
Shearing machine. Sheep .....	H. A. Reid .....	9,455	Nov. 9	681	{ 184 185 }	18	1108
Sheet-metal pan .....	A. Cox .....	9,250	June 15	993	270	17	1395
Sheet-metal pipes. Grooving .....	C. Letterman .....	9,343	Aug. 17	911	256	18	409
Shingle-cutting machine .....	W. Goldie .....	9,251	June 15	993	270	17	1395
Shingle-cutting machine .....	W. Goldie .....	9,257	June 15	1002	272	17	1397
Shoe-maker's edge-plane .....	A. P. Hazard .....	9,167	Apr. 20	796	222	17	901
Shoe-maker's float .....	J. W. Feard .....	9,396	Oct. 5	319	88	18	791
Show-box .....	M. H. Pulaski .....	9,185	May 4	288	84	17	1026
Shutter. Rolling .....	J. G. Wilson .....	9,047	Jan. 13	521	140	17	104
Sign. Flexible .....	F. Tuchfarber .....	9,223	June 1	303	85	17	1275
Soda-water and other liquids. Apparatus for cooling .....	A. D. Puffer .....	9,465	Nov. 16	1025	274	18	1174
Soda-water apparatus .....	J. Matthews .....	9,028	Jan. 6	259	69	17	47
Soldering-machine .....	P. Dillon and J. Cleary .....	9,205	May 18	914	260	17	1148
Soldering-machine .....	P. Dillon and J. Cleary .....	9,479	Nov. 23	1282	343	18	1222
Sower and cultivator. Combined seed .....	E. Emmert .....	9,518	Dec. 28	1341	367	18	1527
Spark-arrester .....	F. A. Perry .....	9,363	Aug. 31	1513	423	18	516
Spark-arrester .....	F. A. Perry .....	9,364	Aug. 31	1513	424	18	517
Spark-arrester .....	F. A. Perry .....	9,420	Oct. 19	986	273	18	917
Spark-arrester .....	F. A. Perry .....	9,421	Oct. 19	987	274	18	917
Spark-arrester. Locomotive .....	A. Berney .....	9,409	Oct. 12	650	179	18	854
Spectacles .....	T. A. Willson and G. W. Meigs .....	9,241	June 8	687	188	17	1343
Spinning-machine spindle-bearing .....	J. Birkenhead .....	9,474	Nov. 23	1276	342	18	1221
Spinning. Ring for ring .....	J. W. Wattle .....	9,352	Sept. 21	850	237	18	680
Speons. Making sheet-metal .....	M. Fowler .....	9,480	Nov. 23	1283	344	18	1222
Spout. Sap .....	G. L. Cady .....	9,394	Oct. 5	317	88	18	790
Square and bevel. Combined .....	O. R. Chaplin .....	9,183	May 4	286	84	17	1025
Square. Try .....	L. S. Starrett .....	9,419	Oct. 19	985	273	18	917
Stamp. Branding .....	A. M. Darrell .....	9,516	Dec. 28	1339	367	18	1526
Stamp. Branding .....	W. C. Garretson and E. Draper .....	9,311	July 20	1047	296	18	187
Stamp feeder. Ore .....	T. A. Cochrane .....	9,061	Feb. 3	326	94	17	257
Stamp. Hand .....	G. M. and C. Stevens and S. S. Turner .....	9,491	Dec. 7	323	89, 90	18	1336
Stave-jointer .....	H. A. Crossley .....	9,441	Nov. 2	344	95	18	1044
Steam and hot-air pipes. Covering for .....	A. B. Battelle .....	9,318	July 27	1313	370	18	238
Steam-boiler attachment .....	G. Kratz .....	9,347	Aug. 17	917	258	18	410
Steam-boiler feeding device .....	H. and O. Amundsen .....	9,459	Nov. 9	688	186	18	1109
Steam-boiler. Portable .....	W. R. Michener .....	9,149	Apr. 13	510	143	17	842
Steam-boilers. Superheater for .....	H. Schaubel .....	9,069	Feb. 10	608	176	17	323
Steam-engine. Portable .....	H. K. Kriebel .....	9,351	Aug. 24	1198	{ 335 336 }	18	461
Steam-power car-brake apparatus .....	G. Westinghouse, Jr. ....	9,478	Nov. 23	1281	343	18	1223

*Alphabetical list of reissues—Continued.*

Invention.	Name.	No.	Date.	Monthly volume.		Official Gazette.	
				Spec.	Dr'g.	Vol.	Page.
Steamer and drier. Wheat.....	C. T. Hanna .....	9,367	Aug. 31	1517	424	18	517
Steering apparatus. Steam or hydraulic .....	J. Gates .....	9,200	May 18	902	257	17	1146
Stirrup.....	O. V. Flora .....	9,244	June 8	691	189	17	1344
Stocking-supporter clasp .....	S. K. Ellis .....	9,506	Dec. 21	971	269	18	1459
Stove .....	C. Fulton .....	9,252	June 15	995	270	17	1396
Stove .....	D. L. Stiles .....	9,337	Aug. 3	305	87	18	298
Stove-board .....	A. I. Griggs .....	9,486	Dec. 7	313	88	18	1333
Stove-board .....	A. C. Stoessiger .....	9,316	July 20	1063	299	18	190
Stove. Coal-oil .....	W. B. Billings .....	9,121	Mar. 16	829	242	17	621
Stove-grate .....	G. Froh .....	9,463	Nov. 16	1023	274	18	1173
Stove. Heating.....	G. R. Moore .....	9,247	June 8	697	191	17	1345
Stove-platform .....	E. Detwiler .....	9,277	July 6	327	90	18	56
Stoves. Adjustable rolling support for .....	C. D. Woodruff .....	9,283	July 6	333	92	18	57
Suspender-end .....	B. J. Greely .....	9,155	Apr. 13	518	145	17	844
Suspenders .....	J. Katzenberg .....	9,435	Oct. 26	1288	360	18	977
Suspension ring and hook.....	I. Fine .....	9,494	Dec. 7	328	90	18	1337
Tape-holder.....	E. Rice .....	9,106	Mar. 2	255	72	17	501
Taps. Well for water-main .....	P. E. Ober .....	9,510	Dec. 21	975	270	18	1460
Telephone .....	E. Berliner .....	9,499	Dec. 14	656	196	18	1403
Textile and other materials. Machine for cutting .....	A. Warth .....	9,232	June 1	318	83	17	1278
Textile fabrics. Machine for cutting .....	A. Warth .....	9,231	June 1	316	87	17	1277
Theater appliance.....	W. L. Hunt .....	9,374	Sept. 7	272	75	18	569
Thill-coupling.....	W. Harder .....	9,278	July 6	328	91	18	56
Thrashing-machine .....	J. T. Thornton .....	9,264	June 22	1252	352	17	1446
Tile-machine.....	J. C. McKenzie .....	9,162	Apr. 20	720	220	17	899
Time-detector. Watchman's.....	W. Imhaeuser .....	9,387	Sept. 28	1109	304	18	730
Time-lock.....	E. McDuffee .....	9,246	June 8	694	190	17	1345
Tin and terne plate. Apparatus for the manufacture of .....	E. Morewood .....	9,320	July 27	1316	371	18	238
Tinned plates by heat and pressure. Machine for uniting .....	G. H. Perkins .....	9,406	Oct. 12	643	178	18	853
Tinned plates. Machine for uniting .....	G. H. Perkins .....	9,399	Oct. 5	322	89	18	791
Tobacco-case.....	J. W. Stone .....	9,437	Oct. 26	1290	360	18	978
Tobacco-curing furnace .....	J. C. Millner .....	9,108	Mar. 2	257	72	17	501
Tobacco. Machine for measuring and packing .....	C. C. Clawson .....	9,172	Apr. 27	1140	312	17	965
Tool-shank.....	A. H. Suplee .....	9,472	Nov. 16	1036	277	18	1176
Torch .....	J. A. McPherson .....	9,357	Aug. 24	1207	337	18	462
Toy. Automatic.....	E. R. Ives .....	9,370	Sept. 7	265	73	18	568
Toy pistol.....	J. B. Secor .....	9,436	Oct. 26	1288	360	18	978
Toy. Whistling.....	J. Chaskel .....	9,253	June 15	1000	271	17	1396
Transom-lifter .....	J. F. Wollensak .....	9,307	July 20	1043	294	18	186
Tray. Child's table.....	W. M. Conger .....	9,304	July 20	1039	294	18	186
Tray. Child's table.....	A. Turner .....	9,285	July 6	337	93	18	58
Truck apparatus for lifting and conveying weights.....	A. E. Brown .....	9,332	Aug. 3	300	85	18	297
Urinal .....	R. D. O. Smith .....	9,427	Oct. 19	995	275	18	918
Valve. Balanced .....	J. F. Allen .....	9,303	July 20	1038	293	18	186
Valve for locomotive and other engines. Throttle.....	H. Watkeys .....	9,100	Feb. 24	1187	340	17	444
Valve. Safety.....	J. Absterdam .....	9,242	June 8	688	188	17	1344
Valve-seat for steam-cylinders .....	H. Watkeys .....	9,386	Sept. 21	856	237	18	681
Valve. Stop.....	J. H. Strehli .....	9,142	Apr. 6	262	77	17	794
Vapor-burner .....	W. H. Smith .....	9,227	June 1	307	86	17	1276
Vapor-engine .....	W. P. and W. T. Wood .....	9,400	Oct. 5	323	89	18	792
Vehicle-seat.....	F. Oppenheim .....	9,464	Nov. 16	1024	274	18	1174
Velocipede.....	J. A. Aspinwall and C. M. Perry .....	9,348	Aug. 24	1195	334	18	460
Velocipede.....	B. P. Crandall .....	9,096	Feb. 24	1180	338	17	443
Ventilating and cooling dairies.....	J. Wilkinson .....	9,051	Jan. 20	708	191	17	142
Wagon. Dumping.....	H. Bailey .....	9,067	Feb. 10	605	176	17	323
Wagon for unloading coal .....	J. H. Wood .....	9,368	Aug. 31	1518	425	18	518
Warping-machine stop mechanism .....	T. C. Entwistle .....	9,319	July 27	1314	371	18	238
Wash-board.....	J. Epeneter and B. Grahl .....	9,022	Jan. 6	251	67	17	46
Wash-boiler trap.....	H. R. Robbins .....	9,513	Dec. 21	978	271	18	1461
Wash-bowl. Adjustable.....	J. L. Knight and S. Smith .....	9,355	Aug. 24	1204	337	18	462
Wash-bowl. Adjustable.....	J. L. Knight and S. Smith .....	9,500	Dec. 14	688	196	18	1404
Washing apparatus.....	W. B. Le Noir .....	9,134	Mar. 30	1400	394	17	735
Watch-key. Self-adjusting.....	J. S. Birch .....	9,310	July 20	1046	296	18	187
Watches. Roller-abstracter for .....	B. Fresco .....	9,467	Nov. 16	1027	275	18	1174
Water-closet.....	R. D. O. Smith .....	9,425	Oct. 19	992	275	18	918
Water-closet.....	R. D. O. Smith .....	9,426	Oct. 19	994	275	18	918
Water-conductor .....	T. W. Irwin and G. K. Reber .....	9,070	Feb. 10	609	176	17	323
Water-meter.....	T. Sweeney .....	9,379	Sept. 14	539	149	18	622
Watering-column .....	J. N. Poage .....	9,502	Dec. 21	963	268	18	1458
Wells. Temper-screw for oil.....	R. B. Magee .....	9,288	July 13	683	191	18	120
Wheelbarrow.....	J. Ennis .....	9,395	Oct. 5	318	88	18	790
Wheelbarrow.....	C. R. Hight .....	9,342	Aug. 17	910	256	18	408
Wheelbarrow.....	C. C. Johnson .....	9,323	July 27	1324	372	18	239
Wheelbarrow.....	W. McKibbin .....	9,369	Aug. 31	1519	425	18	518
Whip-socket.....	L. C. Clark .....	9,354	Aug. 24	1204	337	18	462
Whip-socket.....	A. Searls .....	9,297	July 13	693	193	18	122
Whip-socket.....	A. Searls .....	9,424	Oct. 19	990	275	18	918
Windlass locking-gear .....	G. H. Remington and J. P. Manton .....	9,233	June 1	323	88	17	1279
Windmill.....	W. H. Wheeler .....	9,493	Dec. 7	326	90	18	1336
Window-spring catch.....	F. Babcock .....	9,301	July 20	1036	293	18	185
Wire-cutting machine.....	J. Adt .....	9,294	July 13	690	193	18	122
Wire-looping and cutting machine.....	W. Wilson, Jr. ....	9,404	Oct. 12	640	177	18	852
Wire-rolling machinery.....	H. B. Comer .....	9,321	July 27	1319	372	18	239
Wood. Machine for bundling kindling.....	J. Richardson .....	9,490	Dec. 7	321	89	18	1335
Wood. Preserving.....	L. S. Robbins .....	9,512	Dec. 21	977	271	18	1461
Wringer.....	J. Todd .....	9,432	Oct. 26	1282	359	18	976
Wringing-machine.....	J. G. Roth .....	9,158	Apr. 13	524	146	17	845
Yoke. Metal neck.....	W. H. Johnson .....	9,366	Aug. 31	1516	424	18	517

# ALPHABETICAL LIST OF TRADE-MARKS.

Title.	Name.	No.	Date.	Official Gazette.	
				Volume.	Page.
Aerated waters.....	J. Matthews.....	7,807	Feb. 3	17	202
Alum. Finely powdered.....	Harrison Brothers & Co.....	7,919	May 25	17	1160
Asphalte, crude or crushed, or otherwise manufactured; also mastic or any other compound of asphalte with bitumen, or other substance; also pavements made wholly or partly from the same.	Neuchatel Asphalte Company.....	7,859	Mar. 30	17	688
Baking-powder.....	Sterling Manufacturing Company.....	8,127	Dec. 21	18	1410
Baking-powder, yeast-powder, and similar bread preparations.	Hatch & Jenks.....	7,970	July 13	18	66
Beating and mixing machine.....	C. Lehmann.....	7,792	Jan. 6	17	2
Bed-bottoms. Spring.....	G. Heyman.....	7,972	July 13	18	66
Beer.....	F. Dittmer.....	8,021	Sept. 7	18	523
Beer.....	F. Dittmer.....	8,048	Sept. 28	18	687
Beer. Bottled lager.....	S. Wainwright & Co.....	8,086	Nov. 9	18	1051
Beer. Lager.....	Beck & Co.....	7,984	Aug. 3	18	245
Beer. Lager.....	J. Gahn.....	7,899	May 4	17	978
Beer. Lager.....	P. M. Olmeis & Co.....	7,905	May 11	17	1038
Beer. Lager.....	Schmitt & Koehne.....	7,876	Apr. 13	17	804
Beverage for the table, used as a substitute for coffee.	Kaoka Manufacturing Company.....	7,916	May 18	17	1097
Beverage preparation.....	J. S. Ethridge.....	7,985	Aug. 3	18	245
Beverages. Aerated.....	Zoedone Company.....	8,055	Oct. 5	18	737
Beverages. Tonic.....	Johnson & Bishop.....	7,911	May 18	17	1097
Bitters.....	Mayer Brothers & Co.....	7,912	May 18	17	1097
Bitters. Herbal.....	W. H. Beasley.....	8,050	Sept. 28	18	687
Bitters. Hops and malt.....	G. P. Glazier.....	7,951	June 22	17	1406
Bitters, liniments, and kindred medical preparations.....	Gentian Bitters Company.....	7,901	May 11	17	1037
Bitters. Stomach.....	J. C. Parker.....	7,981	July 27	18	195
Bitters. Tonic.....	H. E. Bucklen.....	7,938	June 8	17	1289
Blackening and polish.....	T. Y. Kelley.....	8,047	Sept. 28	18	687
Blackening. Harness.....	T. C. Pritz.....	8,009	Aug. 17	18	362
Blanket.....	Shepard, Norwell & Co.....	8,040	Sept. 14	18	575
Blue. Wash.....	W. Hoffmann & Co.....	8,110	Dec. 7	18	1280
Blue. Wash.....	W. Hoffmann & Co.....	8,111	Dec. 7	18	1280
Bluing. Liquid.....	S. S. Newton & Co.....	8,062	Oct. 12	18	798
Boot and shoe.....	C. E. Wiswall & Co.....	8,089	Nov. 9	18	1052
Boots.....	L. B. Mantonya.....	7,941	June 15	17	1353
Boxes containing the apparatus for a game or toy.....	M. J. Rice.....	7,903	May 11	17	1038
Braid-pins.....	A. Cook.....	7,853	Mar. 16	17	574
Britannia, silver-plated, and solid ware.....	Rogers & Brittin.....	7,892	May 4	17	978
Brooms and wisps. All kinds of.....	Lang & Shepard.....	8,123	Dec. 21	18	1409
Brushes such as have brushing-surfaces of bristles, either natural or artificial, metallic or non-metallic, and applicable to various uses, except hair-brushes.	G. A. Scott.....	8,010	Aug. 17	18	362
Butter.....	P. Pupin.....	8,098	Nov. 23	18	1181
Butter.....	G. W. Simpson.....	7,967	July 13	18	65
Butter.....	Société Générale de Produits Alimentaires.....	8,072	Oct. 19	18	861
Butter-color.....	N. S. Capen.....	8,114	Dec. 7	18	1280
Buttons.....	H. W. Knight.....	7,909	May 25	17	1097
Buttons.....	H. W. Knight.....	7,910	May 25	17	1097
Canned condensed milk.....	Orange County Milk Association.....	8,069	Oct. 19	18	861
Canned goods. Certain.....	J. H. Larzelere & Co.....	8,117	Dec. 14	18	1343
Canned oysters.....	L. McMurray & Co.....	7,815	Feb. 10	17	278
Canvas padding.....	J. F. White.....	7,914	May 18	17	1097
Cement.....	Buffalo Cement Company.....	7,855	Mar. 23	17	630
Chains, bracelets, collar and sleeve buttons, pins, and ear-drops.	F. G. Whitney & Co.....	7,838	Feb. 24	17	402
Chart for drafting garments. Pattern.....	E. J. Linck.....	7,902	May 11	17	1037
Cheese.....	J. Neuenschwander & Co.....	7,854	Mar. 16	17	574
Cheese.....	J. Sinclair & Co.....	8,032	Sept. 14	18	575
Cheese.....	J. Sinclair & Co.....	8,033	Sept. 14	18	575
Cheese.....	J. Sinclair & Co.....	8,034	Sept. 14	18	575
Cheese.....	J. Sinclair & Co.....	8,035	Sept. 14	18	575
Cheese.....	J. Sinclair & Co.....	8,036	Sept. 14	18	575
Cheese.....	J. Sinclair & Co.....	8,037	Sept. 14	18	575
Chicory.....	E. Seelig.....	8,085	Nov. 9	18	1051
Cigars.....	Alles & Fisher.....	8,031	Sept. 14	18	575
Cigars.....	L. Andrae.....	8,133	Dec. 28	18	1467
Cigars.....	E. Aschermann.....	7,924	June 1	17	1226
Cigars.....	E. Aschermann & Co.....	8,057	Nov. 9	18	1051
Cigars.....	Boston Cooperative Association.....	8,135	Dec. 28	18	1467
Cigars.....	Giglio & Freschi.....	7,926	June 1	17	1226
Cigars.....	H. Grimhagen.....	7,804	Feb. 3	17	202
Cigars.....	Gumpert Brothers.....	8,053	Oct. 5	18	737
Cigars.....	Gumpert Brothers.....	8,060	Oct. 12	18	798
Cigars.....	H. Huckfeld.....	8,061	Oct. 12	18	798
Cigars.....	Kahman Brothers & Bremer.....	8,068	Oct. 19	18	861
Cigars.....	Krohn, Feiss & Co.....	7,824	Feb. 17	17	334
Cigars.....	Krohn, Feiss & Co.....	7,825	Feb. 17	17	334

*Alphabetical list of trade-marks—Continued.*

Title.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Cigars.....	Muhn & Brandfass.....	7,942	June 15	17	1353
Cigars.....	E. Pickhardt.....	8,008	Aug. 17	18	363
Cigars.....	J. R. Smith.....	7,801	Jan. 27	17	154
Cigars.....	Straiton & Storm.....	7,952	June 29	17	1454
Cigars.....	Sullivan & Burk.....	8,018	Aug. 31	18	467
Cigars and snuff.....	Bischoff, Schultz & Co.....	8,101	Nov. 23	18	1182
Cigars, cigarettes, and chewing and smoking tobacco.....	M. I. Hampton.....	7,843	Mar. 2	17	456
Cigars, cigarettes, and chewing and smoking tobacco.....	N. Kuhn.....	8,057	Oct. 12	18	798
Cigars, cigarettes, and chewing and smoking tobacco.....	Sutro & Newmark.....	7,816	Feb. 10	17	278
Cigars, cigarettes, and chewing and smoking tobacco.....	Sutro & Newmark.....	7,817	Feb. 10	17	278
Cigars, cigarettes, and smoking and chewing tobacco.....	C. G. Emery.....	7,870	Apr. 13	17	804
Cigars, cigarettes, and smoking and chewing tobacco.....	Haworth & Williams.....	7,935	June 8	17	1287
Cigars, cigarettes, and smoking and chewing tobacco.....	Jaeger Brothers.....	7,882	Apr. 27	17	912
Cigars, cigarettes, and smoking and chewing tobacco.....	Lozano, Pendas & Co.....	8,065	Oct. 12	18	798
Cigars, cigarettes, and smoking and chewing tobacco.....	McCoy & Co.....	7,895	May 4	17	978
Cigars, cigarettes, and smoking and chewing tobacco.....	Poole, Gilliam & Co.....	8,124	Dec. 21	18	1410
Cigars, cigarettes, and smoking tobacco.....	H. Seidenberg.....	7,943	June 15	17	1353
Cigars, cigarettes, and smoking tobacco.....	Straiton & Storm.....	7,904	May 11	17	1038
Cigars, cigarettes, and smoking tobacco.....	Straiton & Storm.....	7,937	June 8	17	1288
Cigars, cigarettes, cheroots, and plug, smoking, and chewing tobacco.....	Kinney Tobacco Company.....	8,051	Sept. 28	18	687
Cigars, cigarettes, cheroots, and plug, smoking, and chewing tobacco.....	Kinney Tobacco Company.....	8,052	Sept. 28	18	687
Cigars, cigarettes, cheroots, and smoking and chewing tobacco.....	Hirschl & Bendheim.....	8,122	Dec. 21	18	1409
Cigars, cigarettes, cheroots, plug, smoking, and chewing tobacco.....	Kinney Tobacco Company.....	8,038	Sept. 14	18	575
Cigars, cigarettes, cheroots, smoking-tobacco, chewing-tobacco, and snuff.....	L. C. Frey.....	8,002	Aug. 10	18	304
Cigars, cigarettes, plug and fine-cut smoking and chewing tobacco, and snuff.....	Buchanan & Lyall.....	8,044	Sept. 21	18	627
Cigars, cigarettes, smoking and chewing tobacco, and snuff.....	P. Whitlock.....	8,103	Nov. 23	18	1182
Clasp-knives.....	A. J. Jordan.....	7,980	July 20	18	134
Clock.....	H. J. Davies.....	7,991	Aug. 3	18	246
Clock.....	H. J. Davies.....	8,078	Nov. 2	18	985
Clothing. Boys'.....	A. Shuman & Co.....	8,130	Dec. 21	18	1410
Clothing. Boys'.....	A. Shuman & Co.....	8,131	Dec. 21	18	1410
Coal-oil.....	Colburn, Birks & Co.....	8,028	Sept. 14	18	575
Coffee. Java.....	J. Stiner.....	8,083	Nov. 2	18	985
Coffee. Roasted.....	Arbuckle Brothers.....	8,058	Oct. 12	18	798
Cologne-water.....	Hiscox & Co.....	8,067	Oct. 19	18	861
Cordial.....	Morley Brothers.....	7,897	May 4	17	978
Corn-sirup.....	O. W. Heyer & Co.....	8,070	Oct. 19	18	861
Corsets.....	Heilner & Strauss.....	7,791	Jan. 6	17	1
Corsets or boxes containing corsets.....	J. Bowers.....	8,113	Dec. 7	18	1280
Corundum.....	Alden Emery Company.....	7,961	July 6	18	2
Cotton fabrics, unbleached, bleached, and colored. Woven.....	Hill Manufacturing Company.....	7,796	Jan. 20	17	112
Cotton fabrics, unbleached, bleached, and colored. Woven.....	Hill Manufacturing Company.....	7,797	Jan. 20	17	112
Cotton sheetings and duck.....	L. Loomis.....	7,820	Feb. 10	17	278
Crackers.....	E. W. Albee.....	8,108	Nov. 30	18	1227
Crucibles and other plumbago ware for chemical purposes. Plumbago.....	Patent Plumbago Crucible Company.....	7,849	Mar. 9	17	514
Crutches.....	J. Whittemore.....	7,923	May 25	17	1166
Damascée.....	Moss Manufacturing Company.....	7,966	July 13	18	65
Desk and bench. School.....	J. L. Ayres.....	8,080	Nov. 2	18	985
Detergent compound.....	A. Bond.....	7,998	Aug. 10	18	304
Dry-goods.....	Eddystone Manufacturing Company.....	7,931	June 1	17	1226
Dry-goods.....	Eddystone Manufacturing Company.....	7,933	June 1	17	1226
Duck or canvas. Flax.....	F. Baylis & Co.....	7,793	Jan. 13	17	62
Dyes. Packages of.....	Felt & Hotchkin.....	7,975	July 20	18	134
Electrotype-plates.....	F. A. Ringler.....	7,949	June 22	17	1406
Embroideries. Cotton.....	J. A. Obersteller.....	7,886	Apr. 27	17	912
Eye remedies.....	P. Thorpe.....	7,950	June 22	17	1406
Eye-wash. Liquid.....	Benesia Chemical Company.....	7,818	Feb. 10	17	278
Felting.....	J. Porrett & Sons.....	7,995	Aug. 10	18	304
Files. Iron and steel.....	Kearney & Foot.....	8,005	Aug. 17	18	362
Fish. Manufactured.....	Ferguson, Walker & Co.....	8,091	Nov. 16	18	1117
Flour.....	Camp Spring Mill Company.....	7,988	Aug. 3	18	246
Flour.....	Camp Spring Mill Company.....	7,989	Aug. 3	18	246
Flour.....	Hezel Milling Company.....	8,013	Aug. 24	18	416
Flour.....	H. Kolb.....	7,803	Jan. 27	17	154
Flour.....	B. R. Pegram, Jr.....	7,927	June 1	17	1226
Flour.....	B. R. Pegram, Jr.....	7,928	June 1	17	1226
Flour.....	B. R. Pegram, Jr.....	8,063	Oct. 12	18	798
Flour.....	B. R. Pegram, Jr.....	8,064	Oct. 12	18	798
Flour.....	B. R. Pegram, Jr.....	8,076	Oct. 26	18	957
Flour.....	B. R. Pegram, Jr.....	8,077	Oct. 26	18	957
Flour.....	B. R. Pegram, Jr.....	8,119	Dec. 14	18	1343
Flour. Patent-process.....	J. N. Matthews.....	8,043	Sept. 21	18	627
Flour. Wheat.....	Empire Mill Company.....	7,795	Jan. 20	17	112
Flour. Wheat.....	Scharff Brothers.....	7,987	Aug. 3	18	245
Flour. Wheat.....	J. C. Boyle.....	7,993	Aug. 10	18	304
Food. Prepared baby.....	V. E. Manger & Petrie.....	7,848	Mar. 9	17	514
Galloons, doubles, Prussian bindings, braids, shoe-laces, &c.....	R. Thorp & Sons.....	7,877	Apr. 13	17	804
Gloves.....	P. Courvoisier & Co.....	7,794	Jan. 13	17	62
Gloves.....	A. Person, Harriman & Co.....	7,921	May 25	17	1160
Gloves. Dress.....	F. W. Hellwig.....	7,867	Apr. 6	17	746
Gloves. Kid.....	P. Centemeri.....	7,898	May 4	17	978
Gloves. Kid.....	C. Fortin & Co.....	7,963	July 6	18	2
Glucose.....	W. Pickhardt & Kuttroff.....	7,922	May 25	17	1160
Guanos, superphosphates, and fertilizing compositions.....	R. W. L. Rasin & Co.....	7,872	Apr. 13	17	804
Guanos, superphosphates, and fertilizing compositions.....	R. W. L. Rasin & Co.....	7,873	Apr. 13	17	804
Gun. Shot.....	Wiuchester Repeating Arms Company.....	8,001	Aug. 10	18	304
Hair preparation.....	T. H. Hearn & Co.....	7,920	May 25	17	1160

*Alphabetical list of trade-marks—Continued.*

Title.	Name.	No.	Date.	Official Gazette.	
				Vol.	Page.
Hat and cap.....	C. Pié.....	8,012	Aug. 24	18	416
Hats. Felt.....	Croft & Knapp.....	7,875	Apr. 13	17	804
Hats. Felt.....	Croft & Knapp.....	7,940	June 15	17	1353
Hats. Gentlemen's and boys' and ladies' and misses' soft felt.	Topping, Maynard & Hobron.....	8,096	Nov. 16	18	1117
Hop-bitters.....	Hop Bitters Manufacturing Company.....	8,024	Sept. 7	18	523
Hosiery.....	Shaw Stocking Company.....	7,810	Feb. 3	17	202
Iceland-moss troches and chloroform and arnica liniments.....	Syvarth & Schleussner.....	7,982	July 27	18	195
Jewelry, comprising lace-pins, scarf-pins, ear-rings, ear-drops, brooches, studs, sleeve-buttons, and scarf-rings.	Howard & Scherrieble.....	8,095	Nov. 16	18	1117
Jewelry. Imitation-diamond.....	A. Steinau, Jr.....	7,811	Feb. 3	17	202
Lard.....	Coe & Harbaugh.....	7,974	July 20	18	134
Leather and dress shoe.....	E. Ridley & Sons.....	8,039	Sept. 14	18	575
Leather goods. Certain fancy.....	E. Posen & Co.....	7,885	Apr. 27	17	912
Leather. Kid.....	A. Combe & Oriol.....	7,888	Apr. 27	17	912
Liniment.....	Thompson & Kerr.....	8,129	Dec. 21	18	1410
Liniment, condition-powders, and ointment.....	C. Bennett.....	7,959	July 6	18	2
Liniment. Rheumatic.....	C. Kirsch.....	8,112	Dec. 7	18	1280
Liver-pad.....	Thompson, Schott & Co.....	7,837	Feb. 24	17	402
Medical compound.....	J. R. Marshall.....	8,026	Sept. 7	18	523
Medical compound.....	Relief Manufacturing Company.....	7,908	May 18	17	1097
Medical compound for dysmenorrhœa.....	M. J. Fuzzard.....	8,105	Nov. 30	18	1227
Medical compound for the cure of blood and liver maladies. Certain	G. H. Lohman & Co.....	8,046	Sept. 21	18	627
Medicated belts.....	Walsh & James.....	7,962	July 6	18	2
Medicated lozenges or confections.....	C. F. Pearce.....	7,913	May 18	17	1097
Medicinal compound. Certain.....	W. H. Randle.....	7,889	Apr. 27	17	912
Medicinal preparation.....	B. F. Arthur.....	7,907	May 18	17	1097
Medicinal preparation.....	H. A. Cassebeer, Jr.....	7,953	June 29	17	1454
Medicinal preparation.....	C. M. Coolidge.....	7,878	Apr. 20	17	855
Medicinal preparation.....	S. Gerry & Co.....	7,847	Mar. 9	17	513
Medicinal preparation.....	G. G. Green.....	8,059	Oct. 12	18	793
Medicinal preparation.....	T. Morley.....	8,042	Sept. 21	18	627
Medicinal preparation.....	Tilden & Co.....	8,019	Aug. 31	18	467
Medicinal preparation.....	T. W. Wood.....	7,822	Feb. 10	17	278
Medicinal preparation.....	F. Wright & Brother.....	8,116	Dec. 7	18	1280
Medicinal preparation. Certain.....	Lanman & Kemp.....	7,845	Mar. 2	17	456
Medicinal preparation. Certain.....	J. Lloyd.....	7,983	July 27	18	195
Medicinal preparation. Certain.....	A. A. Solomons.....	7,862	Mar. 30	17	683
Medicine.....	H. C. Collins.....	8,137	Dec. 28	18	1467
Medicine. A certain.....	M. Elward.....	7,894	May 4	17	978
Medicine. Certain proprietary.....	Chamberlain & Co.....	8,136	Dec. 28	18	1467
Medicine. Certain proprietary.....	H. G. Colman.....	8,084	Nov. 2	18	985
Medicine for rheumatism, neuralgia, and similar diseases.....	N. Carver and J. R. Stacy.....	7,887	Apr. 27	17	912
Medicine for the cure of rheumatism and dyspepsia.....	J. Webb.....	7,826	Feb. 17	17	334
Medicine for the cure of scrofula and similar diseases.....	J. A. Gates.....	8,029	Sept. 14	18	575
Medicine. Laxative and alterative.....	O. Blank.....	8,006	Aug. 17	18	362
Medicine. Liver.....	A. Maurice.....	8,011	Aug. 24	18	416
Metals for prevention of rust. Compound for coating.....	A. B. Brown & Sons.....	7,813	Feb. 3	17	202
Milk. Condensed.....	New York Condensed Milk Company.....	7,835	Feb. 24	17	402
Milk. Condensed.....	New York Condensed Milk Company.....	7,836	Feb. 24	17	402
Mowers. Lawn.....	Lloyd, Supplee & Walton.....	7,890	May 4	17	978
Muslius. Plain and fancy.....	J. Haslam & Co.....	7,969	July 13	18	66
Needles. Sewing.....	J. Thornton, Jr.....	8,099	Nov. 23	18	1181
Needles. Sewing.....	J. Thornton, Jr.....	8,100	Nov. 23	18	1182
Oil. Wool.....	W. H. Place.....	8,138	Dec. 28	18	1467
Oils and compounds. Lubricating.....	National Lubricating Company.....	7,977	July 20	18	134
Oils and oils for protecting polished metallic surfaces. Lubricating and illuminating	C. A. L. De Forest and H. C. Driggs.....	7,833	Feb. 24	17	402
Ointment.....	Crispin Brothers.....	8,075	Oct. 26	18	957
Ointment.....	Meyer & Sons.....	8,030	Sept. 14	18	575
Ointment. Hoof.....	American Lubricating Oil Company.....	8,088	Nov. 9	18	1051
Opera-glasses, marine glasses, field-glasses, and telescopes.....	Sussfeld, Lorsch & Co.....	7,976	July 20	18	134
Organs, pianos, and melodeons.....	G. P. Bent.....	7,958	June 29	17	1454
Pain. Compound for the cure of.....	J. Leeson.....	7,994	Aug. 10	18	304
Paint. White lead and zinc.....	J. Nichol & Co.....	7,869	Apr. 6	17	746
Paints. Mixed.....	M. M. Pigott & Son.....	7,945	June 22	17	1406
Paper for checks, bank-notes, promissory-notes, drafts, bills of exchange, &c. Safety.	H. M. Walker.....	7,865	Mar. 30	17	688
Paper. Water-proofed carbolized.....	Page, Booth & Co.....	7,986	Aug. 3	18	245
Paper. Wrapping and writing.....	R. H. Macy & Co.....	7,851	Mar. 9	17	514
Peanuts. Roasted or raw.....	Weller & Worth.....	8,014	Aug. 24	18	416
Peanuts. Roasted or raw.....	Weller & Worth.....	8,015	Aug. 24	18	416
Pen. Gold.....	Mabie, Todd & Bard.....	8,025	Sept. 7	18	523
Pencils for carpenters and draftsmen. Lead.....	C. H. Dudley.....	7,823	Feb. 17	17	334
Pharmaceutical preparation. Certain.....	G. Evanovitch.....	8,104	Nov. 30	18	1227
Phosphates, hypophosphites, &c.....	S. R. Percy.....	7,891	May 4	17	973
Pianos.....	J. Estey & Co.....	8,056	Oct. 12	18	798
Pianos.....	Hazelton Brothers.....	7,866	Apr. 6	17	746
Pickles.....	Yarnall Brothers.....	7,831	Feb. 17	17	334
Pickles.....	Yarnall Brothers.....	7,832	Feb. 17	17	334
Pickles and chowchow.....	N. S. Watts.....	7,963	July 13	18	66
Pills.....	L. J. Harvey.....	7,944	June 22	17	1406
Plows.....	Gale Manufacturing Company.....	8,049	Sept. 23	18	687
Plows for breaking up and cultivating the soil.....	E. B. Whitman.....	7,852	Mar. 16	17	574
Portable engines.....	Frick & Co.....	7,790	Jan. 6	17	1
Poultry-powders.....	C. Brewer.....	7,943	June 22	17	1406
Preparation to prevent the bites and stings of noxious insects.....	J. B. Wood.....	8,073	Oct. 19	18	861
Preparations for the cleansing and preservation of the teeth.....	W. H. Crawford.....	8,007	Aug. 17	18	362
Printer's wash.....	A. Friederich.....	7,992	Aug. 3	18	246
Prints.....	Eddystone Manufacturing Company.....	7,932	June 1	17	1226
Razors, knives, shears, scissors, and surgical instruments.....	G. Knecht.....	8,106	Nov. 30	18	1227

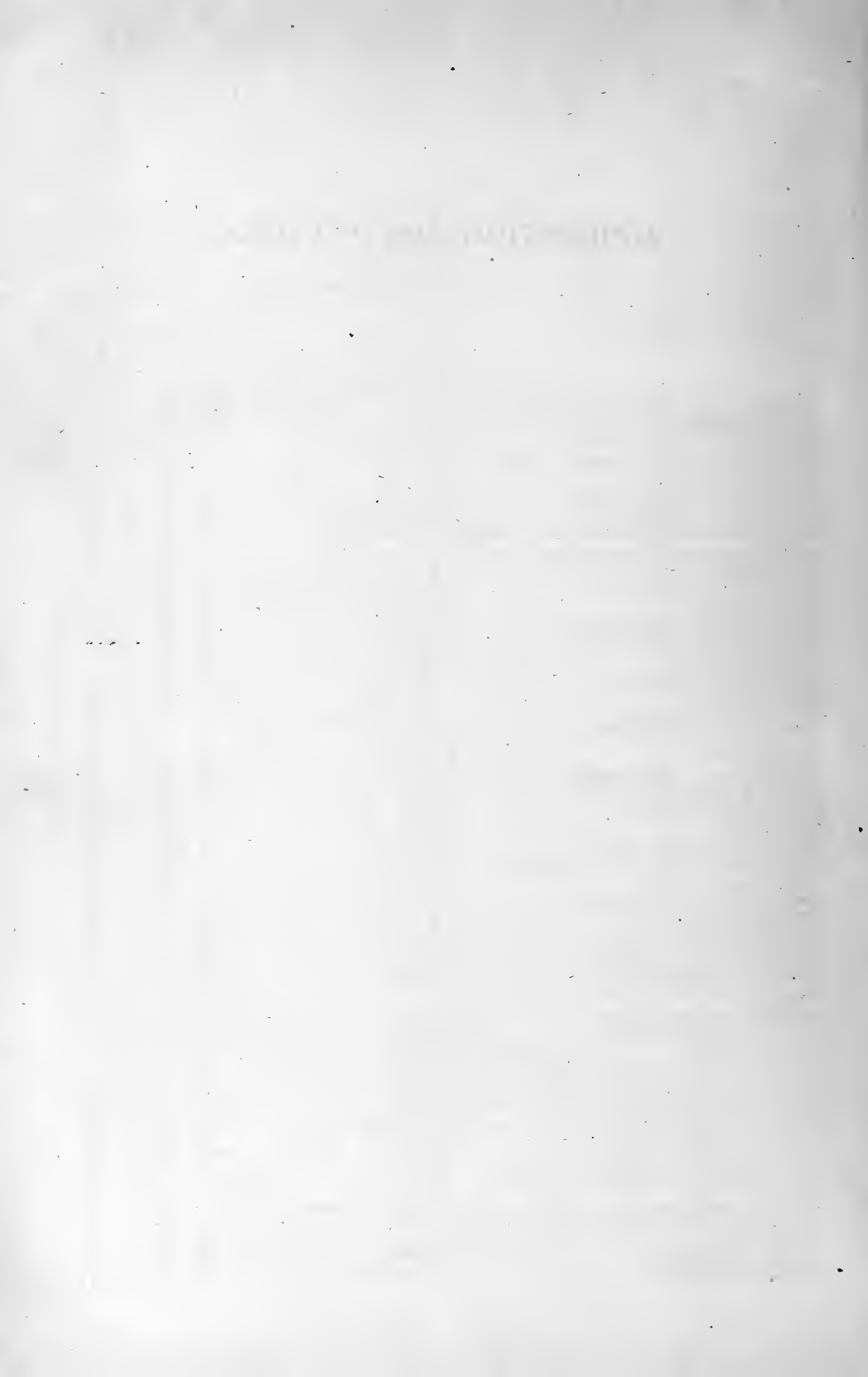


*Alphabetical list of trade-marks—Continued.*

Title.	Name.	No.	Date.	Official Gazette.	
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Remedy for catarrh and kindred affections.....	W. R. Reud.....	8,126	Dec. 21	18	1410
Remedy for diseases of the urinary organs.....	C. A. Cook.....	7,844	Mar. 2	17	456
Remedy for fever and ague.....	D. Wiehl & Co.....	7,883	Apr. 27	17	912
Remedy for throat and lung diseases.....	Lawrence & Martin.....	7,799	Jan. 20	17	112
Rubber articles. Hard.....	College Point Rubber Company.....	7,814	Feb. 10	17	278
Salve.....	E. F. Thompson.....	8,023	Sept. 7	18	523
Salve.....	F. Wilharm.....	7,884	Apr. 27	17	912
Scarf for men's wear. Made-up.....	Fisk, Clark & Flagg.....	7,871	Apr. 13	17	804
Sewing-machine tables, clothes-wringers, fluting-machines, and sad-irons.....	S. C. Tatum & Co.....	8,132	Dec. 21	18	1410
Sewing-machines.....	Thurston Manufacturing Company.....	8,128	Dec. 21	18	1410
Shirts. Dress.....	D. McCarthy, Sons & Co.....	7,808	Feb. 3	17	202
Shirts. Dress.....	D. McCarthy, Sons & Co.....	7,809	Feb. 3	17	202
Shirts. Dress.....	M. Price.....	8,003	Aug. 10	18	304
Shirts. Dress.....	Sinzheimer & Deutsch.....	7,996	Aug. 10	18	304
Shirts. White dress.....	Sinzheimer & Deutsch.....	7,997	Aug. 10	18	304
Shoe-tips.....	W. W. Apsley.....	7,979	July 20	18	134
Shoe-tips.....	W. W. Apsley.....	8,000	Aug. 10	18	304
Shoes.....	C. H. Bass.....	7,915	May 18	17	1097
Skin. Preparation for chapped.....	Chase & Budlong.....	7,918	May 25	17	1160
Soap.....	S. W. Bell & Co.....	7,874	Apr. 13	17	804
Soap.....	T. A. Butler.....	8,074	Oct. 26	18	957
Soap.....	C. Davis & Co.....	7,925	June 1	17	1226
Soap.....	C. S. Higgins.....	7,834	Feb. 24	17	402
Soap.....	C. S. Higgins.....	7,850	Mar. 9	17	514
Soap.....	J. Oakley & Co.....	8,094	Nov. 16	18	1117
Soap.....	J. H. Van Dyke.....	8,066	Oct. 12	18	798
Soap. Cake or bar.....	F. G. Pierra & Co.....	8,071	Oct. 19	18	861
Soaps. Toilet and other.....	J. B. Williams & Co.....	8,120	Dec. 14	18	1343
Soda-fountain.....	A. D. Puffer & Sons.....	7,881	Apr. 20	17	855
Soup package. Vegetable.....	J. D. Warren.....	8,079	Nov. 2	18	985
Starch.....	T. Kingsford.....	8,041	Sept. 21	18	627
Stone-crushers.....	Blake Crusher Company.....	7,827	Feb. 17	17	334
Stove-board. Zinc.....	A. I. Griggs.....	8,081	Nov. 2	18	985
Stove. Slow-combustion.....	C. Portway.....	7,946	June 22	17	1406
Stoves and ranges. Cook.....	Bissell & Co.....	8,121	Dec. 21	18	1409
Stoves and ranges. Cooking.....	Evors & Temme.....	7,934	June 8	17	1287
Sugar and glucose. Grape.....	H. W. Peabody & Co.....	8,102	Nov. 23	18	1182
Tea.....	C. Jevne.....	8,115	Dec. 7	18	1280
Tea.....	G. Lockitt & Sons.....	7,917	May 18	17	1097
Teas. Green, Japan, and black.....	Frazar & Co.....	7,858	Mar. 23	17	630
Teas. Table.....	Sanders & George.....	7,930	June 1	17	1226
Thread. Cotton.....	J. E. Peck.....	7,936	June 8	17	1287
Thread. Spool.....	S. B. and H. B. Nichols.....	8,017	Aug. 31	18	467
Tickings.....	J. Farnum & Co.....	7,879	Apr. 20	17	855
Tickings.....	J. Farnum & Co.....	7,880	Apr. 20	17	855
Tobacco and cigarettes. Chewing and smoking.....	C. R. Messinger.....	8,082	Nov. 2	18	985
Tobacco and cigarettes. Plug and smoking.....	R. W. Oliver and J. E. Robinson.....	8,107	Nov. 30	18	1227
Tobacco and cigarettes. Smoking.....	L. Ginter.....	7,900	May 4	17	978
Tobacco. Chewing.....	Allen & Ellis.....	7,840	Mar. 2	17	456
Tobacco. Chewing and smoking.....	Cullingworth & Ellison.....	7,957	June 29	17	1454
Tobacco. Chewing and smoking.....	Hoffman & Co.....	7,971	July 13	18	66
Tobacco. Chewing and smoking.....	W. J. Yarbrough & Sons.....	7,812	Feb. 3	17	202
Tobacco, chewing-tobacco, and snuff. Smoking.....	E. Ridgway.....	8,022	Sept. 7	18	523
Tobacco, cigars, cigarettes, cheroots, and snuff. Smoking and chewing.....	F. W. Felgner & Son.....	7,828	Feb. 17	17	334
Tobacco, cigars, and cigarettes. Chewing and smoking.....	S. Hershheim & Brother.....	7,960	July 6	18	2
Tobacco. Fine-cut chewing.....	Cotterill, Fenner & Co.....	7,819	Feb. 10	17	278
Tobacco. Fine-cut chewing.....	Simrall & Crawford.....	7,861	Mar. 30	17	688
Tobacco. Manufactured chewing and smoking.....	Allen & Ellis.....	7,841	Mar. 2	17	456
Tobacco. Manufactured chewing and smoking.....	Allen & Ellis.....	7,842	Mar. 2	17	456
Tobacco-pipes and cigar and cigarette holders.....	Bondier, Ulbrich & Cie.....	7,947	June 22	17	1406
Tobacco. Plug.....	G. Wittler.....	8,097	Nov. 16	18	1117
Tobacco. Plug and fine-cut smoking and chewing.....	Buchanan & Lyall.....	8,045	Sept. 21	18	627
Tobacco. Plug chewing.....	Allen & Ellis.....	7,839	Mar. 2	17	456
Tobacco. Plug chewing.....	C. W. Allen.....	8,016	Aug. 31	18	467
Tobacco. Plug chewing.....	C. W. Allen.....	8,109	Dec. 7	18	1280
Tobacco. Plug chewing.....	C. W. Allen.....	8,134	Dec. 28	18	1467
Tobacco. Plug chewing.....	Brown & Brothers.....	8,020	Sept. 7	18	523
Tobacco. Plug chewing.....	Johnston, Fisher & Co.....	7,868	Apr. 6	17	746
Tobacco. Smoking.....	I. N. Link.....	7,805	Feb. 3	17	202
Tobacco. Smoking.....	I. N. Link.....	7,806	Feb. 3	17	202
Tobacco. Smoking.....	G. H. McCann.....	7,896	May 4	17	978
Tobacco. Smoking.....	Weisert Brothers.....	7,906	May 11	17	1038
Tobacco. Smoking.....	Wellman & Dwire.....	7,955	June 29	17	1454
Tobacco. Smoking.....	Wellman & Dwire.....	7,956	June 29	17	1454
Tobacco. Smoking and chewing.....	Wilson & McCallay.....	8,092	Nov. 16	18	1117
Tobacco. Smoking and chewing.....	Wilson & McCallay.....	8,093	Nov. 16	18	1117
Tobacco. Smoking and chewing.....	W. W. Wood.....	7,978	July 20	18	134
Toilet-powder.....	Lorenz Brothers.....	7,856	Mar. 23	17	630
Toilet-powder.....	Lorenz Brothers.....	7,857	Mar. 23	17	630
Toilet-preparations. Certain.....	Lanman & Kemp.....	7,830	Feb. 17	17	334
Tonic and remedy for nervous diseases, malarial and similar affections.....	W. R. Reud.....	8,125	Dec. 21	18	1410
Tooth-wash and tooth-powder.....	J. C. Proctor.....	8,027	Sept. 7	18	523
Tubing. Metal.....	National Tube Works Company.....	7,939	June 8	17	1288
Turpentine in cans, cases, or barrels. Spirits of.....	Blossom, Hayno & Co.....	7,802	Jan. 27	17	154
Vehicle-wheels.....	Woodburn Sarven Wheel Company.....	7,893	May 4	17	978
Velocipedes.....	N. S. C. Perkins.....	7,929	June 1	17	1226
Velvets, silks, and veilings.....	Iselin, Neeser & Co.....	8,118	Dec. 14	18	1343
Veterinary powders.....	S. J. Foutz.....	7,973	July 13	18	66
Washing-powders.....	J. Oakley & Co.....	7,846	Mar. 2	17	450
Watches.....	L. Strasburger.....	7,863	Mar. 30	17	688
Watches.....	L. Strasburger.....	7,864	Mar. 30	17	688

Alphabetical list of trade-marks—Continued.

Title.	Name.	No.	Date.	Official Gazette.	
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Waterproofing, stuffing, and polishing oil. . . . .	E. L. Post. . . . .	7,999	Aug. 10	18	304
Whisky . . . . .	D. F. Clemmer. . . . .	7,800	Jan. 27	17	154
Whisky . . . . .	Freiberg & Levi. . . . .	8,004	Aug. 17	18	362
Whisky . . . . .	Hoffheimer Brothers. . . . .	7,964	July 13	18	65
Whisky . . . . .	Hoffheimer Brothers. . . . .	7,965	July 13	18	65
Whisky . . . . .	C. Lediard. . . . .	7,829	Feb. 17	17	334
Whisky . . . . .	M. A. Maginn. . . . .	8,054	Oct. 5	18	737
Whisky . . . . .	A. Weed. . . . .	7,821	Feb. 10	17	278
Woolen goods, such as cassimeres, suitings, &c . . . . .	E. Gelbermann. . . . .	7,798	Jan. 20	17	112
Yarn. Cotton and woolen darning. . . . .	H. C. Conkle. . . . .	8,090	Nov. 16	18	1117
Yarns. Fancy . . . . .	Middleton, Answerth & Co. . . . .	7,860	Mar. 30	17	688
Yeast-cakes . . . . .	Wilson Yeast and Manufacturing Company. . . . .	7,990	Aug. 3	18	246
Yeast. Compressed . . . . .	G. K. Anderson. . . . .	7,954	June 29	17	1454



# ALPHABETICAL LIST OF LABELS.

Title.	Name.	No.	Date.	Official Gazette.	
				Volume.	Page.
"Amalgam"	G. E. Hodge	2,367	Nov. 30	18	1227
"American Drawing Ink"	C. M. Higgins	2,230	Mar. 16	17	574
"Ammen's Cough Syrup"	R. S. Ammen	2,224	Mar. 9	17	514
"A New Discovery Morse's Dyspepsia Cure"	C. H. Morse	2,277	May 11	17	1038
"Anti-Bilious Tea"	Specific Medicine Company	2,317	July 27	18	196
"Arnicated Extract of Witch Hazel (Hamamelis Virginica)"	E. J. Pinckney	2,218	Mar. 2	17	456
"Arthurs Elixir of Sulphur"	E. F. Arthur	2,298	June 22	17	1405
"Aumack's Compound Apple Ginger"	B. F. Aumack	2,347	Oct. 5	18	737
"Automatic Shading Pen Ink Compound"	B. W. Child	2,299	June 22	17	1405
"Bailey's Original New Hampshire Cider Jelly"	A. H. Bailey	2,374	Dec. 21	18	1410
"Barker's Brazilian Shoe Dressing"	Barker, Moore & Mein	2,207	Feb. 17	17	334
"Barker's Celebrated Improved Vegetable Horse & Cattle Powder."	Barker, Moore & Mein	2,205	Feb. 17	17	334
"Barker's South American Fever and Ague Cure"	Barker, Moore & Mein	2,206	Feb. 17	17	334
"Barnes' Gold and Silver Polish"	D. and W. E. Richards	2,305	July 6	18	2
"Beers' Celebrated Cough Caramels"	C. H. Beers	2,208	Feb. 17	17	334
"Bent & Co.'s Water Crackers"	G. A. Fletcher and J. G. Young, Jr.	2,270	May 11	17	1038
"Bent & Co.'s Crackers"	G. A. Fletcher and J. G. Young, Jr.	2,330	Aug. 31	18	467
"Best Refined Cast Steel"	Cellins Company	2,269	May 11	17	1038
"Beymer's Bitter Balsam and Tonic Pills"	A. S. Beymer	2,180	Jan. 6	17	2
"Bolton's Glycerin and Chamemile Compound"	J. P. Bolton	2,365	Nov. 9	18	1052
"Boston," (for metal tubing)	National Tube Works Company	2,310	July 20	18	134
"Bowman's Pectoral Syrup"	C. A. Bowman & Co.	2,370	Dec. 14	18	1343
"Bradner's Honey Balsam"	Funk & Lackey	2,209	Feb. 17	17	334
"Bread Raiser" (for a Baking Powder)	Yarnall Brothers	2,354	Oct. 12	18	798
"Brewer's Lung Restorer"	T. E. Brewer	2,359	Oct. 26	18	957
"Brocton Wines"	G. E. Ryckman	2,191	Jan. 20	17	112
"Brown Bros. & Co.'s Crackers, Quincy"	Brown Bros. & Co.	2,355	Oct. 19	18	861
"Busby's Improved System Invigorant"	G. C. Thompson, E. K. Wilson, and T. J. Atkins	2,345	Sept. 28	18	687
"Camphorated Arnica"	W. B. Moore	2,326	Aug. 17	18	362
"Celery Bitters"	Dorsey, Easley & Co.	2,258	Apr. 27	17	912
"Charles G. Emery," (for Cigars & Tobacco)	C. G. Emery	2,252	Apr. 20	17	855
"Chas. Woods & Co.'s Celandine Ointment"	C. Woods & Co.	2,315	July 27	18	196
"Chas. Woods & Co.'s Liniment Campher Cream"	C. Woods & Co.	2,316	July 27	18	196
"Chas. Woods & Co.'s Pile Ointment"	C. Woods & Co.	2,314	July 27	18	195
"Cincho-Troche"	L. F. Whittlesey	2,193	Jan. 20	17	112
"Cirage Onctueux"	Boyer & Co.	2,225	Mar. 9	17	514
"Cocoa Beef Tonic &c"	E. J. Pinckney	2,219	Mar. 2	17	456
"Colic, Cholera and Diarrhoea Remedy"	Chamberlain & Co.	2,363	Nov. 9	18	1052
"Compound Extract of Hops. The Best and Cheapest Tonic Known."	I. N. Thorn & Son	2,179	Jan. 6	17	2
"Corbin's Remedy for Pain"	S. W. Abbey & Co.	2,342	Sept. 28	18	687
"Crispin's Sure Cure," (for an Ointment)	Crispin Bros	2,356	Oct. 19	18	861
"Dahl's Dyspepsia Cakes"	H. A. C. Dahl	2,292	June 8	17	1288
"Denniston's Original Worm Tea"	C. E. Denniston	2,287	June 1	17	1226
"Deusner's Cash Sale Novelty Token"	P. Duesner, Jr.	2,257	Apr. 27	17	912
"De Veaux's Fever and Ague Eradicator"	C. D. Stubbs	2,242	Mar. 30	17	688
"De Veaux's Fever and Ague Eradicator"	C. D. Stubbs	2,243	Mar. 30	17	688
"D. F. Packer's Camphor Gum Soap"	D. F. Packer	2,283	May 18	17	1098
"Distilled Sage Cure for Catarrh"	A. H. Stark	2,232	Mar. 16	17	574
"Doctor Guillermo Michelena's Genuine Blood Purifying Syrup."	G. Michelena	2,366	Nov. 9	18	1052
"Donaldson's Liquid Horse Alternative"	J. W. Davis	2,234	Mar. 23	17	630
"Dr. A. Bush's Compound Tolu Syrup"	W. Price & Co.	2,212	Feb. 17	17	334
"Dr. Aitkens' California Tar Weed Cough Syrup"	J. D. Sponogle	2,200	Feb. 10	17	278
"Dr. Bellamy's Compound Extract Gossypium A Complete Uterine Regulator."	W. C. Bellamy	2,348	Oct. 5	18	737
"Dr. Chamber's Kidney Cure or Life Invigorator"	Stites & Givens	2,223	Mar. 2	17	456
"Dr. Duprez's Syrup of Tar and Glycerine Compound"	F. E. Brow	2,352	Oct. 12	18	798
"Dr. Grindle & Son's Consumptive Pulmonary Powders"	Grindle & Son	2,195	Feb. 3	17	202
"Dr. Hilton's Iodoform Liniment and Antiseptic Dressing"	G. P. Hilton	2,236	Mar. 23	17	630
"Dr. Housekeeper's Anodyne Expectorant, &c"	B. Housekeeper	2,249	Apr. 13	17	804
"Dr. J. Ellsworth Sugar-Coated Anti-Bilious and Liver Pills"	F. D. Ellsworth	2,239	Mar. 30	17	688
"Dr. Kelbitoff's Russian Anticontagion Packet"	E. Rice	2,187	Jan. 13	17	62
"Dr. Kilmer's Complete Female Remedy"	S. A. Kilmer	2,353	Oct. 12	18	798
"Dr. King's New Discovery for Consumption and all Bronchial Affections of the Throat, Chest, and Lungs."	H. E. Backlen	2,181	Jan. 13	17	62
"Dr. L. E. Keeley's Double Chloride of Gold Cure for Drunkenness."	L. E. Keeley	2,324	Aug. 10	18	304
"Dr. Mathew Nelson's Anti-Syphilitic Compound"	Globe Medicine Company	2,264	May 4	17	978
"Dr. McFarren's Infalible Remedy, for Chorea, St. Vitus Dance, &c."	S. W. Searles	2,290	June 1	17	1226
"Dr. Murphey's Elixir of Life"	F. Murphey	2,210	Feb. 17	17	334
"Dr. Richard's Worm Syrup"	Minauch & Co.	2,320	July 27	18	196
"Dr. Seth Hart's Croup Syrup"	S. Hart	2,364	Nov. 9	18	1052
"Dr. Stanley's Catarrh Cure"	Dr. Stanley's Medical Co.	2,278	May 11	17	1038

*Alphabetical list of labels—Continued*

Title.	Name.	No.	Date.	Official Gazette.	
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"Dr. Stanley's Cough Syrup"	Dr. Stanley's Medical Co.	2,279	May 11	17	1038
"Dr. S. Whittier's Cocoa Liniment"	S. and R. B. Whittier and E. W. Garratt.	2,204	Feb. 10	17	278
"Dulco A Palatable Castor Oil"	Parry & Co.	2,304	July 6	18	2
"E. G. Washburn's Deodorizer and Disinfectant"	E. G. Washburn	2,325	Aug. 17	18	362
"Electric Bitters"	H. E. Bucklen	2,268	May 11	17	1038
"Evaporation Cure Lotion"	S. M. Landis	2,261	Apr. 27	17	912
"Expositions Internationales Grand Prize Medals "Crystal White" Oil of Peppermint."	A. M. Todd	2,280	May 11	17	1038
"Faconné Underwear"	S. Condé	2,328	Aug. 24	18	416
"Fagley's Vegetable Compound"	D. W. Fagley	2,336	Sept. 7	18	523
"Farmers' Extra Blood Purifying Bitters"	H. M. McGlothlin	2,368	Dec. 7	18	1280
"Fire Proof Card Board and Paper for Brazing, Soldering, &c."	H. D. Goldsmith	2,273	May 11	17	1038
"Form for Bank Checks, Drafts, and any Written Paper Regarding the Receipt or Payment of Money."	A. W. Stone	2,312	July 20	18	134
"Foss' Vermont Catarrh Remedy"	E. J. Foss	2,263	May 4	17	978
"Foutz's Celebrated Horse and Cattle Powders"	S. J. Foutz	2,321	Aug. 3	18	246
"Frey's Universal Pile Suppository"	A. G. Frey	2,190	Jan. 20	17	112
"Gandy's Main Driving Belt"	M. Gandy	2,333	Aug. 31	18	467
"Gandy's Patent American Cotton Belting"	M. Gandy	2,331	Aug. 31	18	467
"Gandy's Patent American Cotton Machine Belting"	M. Gandy	2,334	Aug. 31	18	467
"Gandy's Patent Cotton Belting"	M. Gandy	2,332	Aug. 31	18	467
"G. B. Liniment"	Gentian Bitters Company	2,259	Apr. 27	17	912
"Geer's Carbolyzed Tooth Powder"	S. L. Geer	2,246	Apr. 13	17	804
"Gentian Bitters"	Gentian Bitters Company	2,260	Apr. 27	17	912
"Genuine Extract of Witch Hazel (Hamamelis Virginica)"	E. J. Pinckney	2,220	Mar. 2	17	456
"Gloss Paint"	L. Boucher	2,244	Apr. 6	17	746
"Gold Solution Warranted to Contain Pure Gold"	H. D. Goldsmith	2,271	May 11	17	1038
"Golden Vine Peas"	J. Waltemeyer	2,254	Apr. 20	17	855
"Grauley's Pile Ointment"	H. B. Grauley	2,194	Jan. 27	17	154
"Gray's Solidified Glycerine"	J. R. Gray	2,177	Jan. 6	17	2
"1 Grosse Boutons Tresse Made by W. K. & Co."	H. W. Knight	2,276	May 11	17	1038
"Hale's Honey of Horehound and Tar"	C. N. Crittenton	2,228	Mar. 16	17	574
"Hall's Combined Extract of Rye, Refined Rock Candy, and Fluid Ext. of Red Root."	B. F. Hall & Son	2,214	Feb. 24	17	402
"Harness Dressing"	A. W. Lathrop	2,341	Sept. 28	18	687
"Hastings Great Dyspeptic Panacea"	B. Hastings	2,371	Dec. 14	18	1343
"Haswells Blood and Liver Pills"	W. S. Haswell	2,350	Oct. 12	18	793
"Hegeman & Co. Chemists and Druggists"	J. N. Hegeman	2,183	Jan. 13	17	62
"Hetherington's Tropic Fruit Laxative"	J. E. Hetherington	2,274	May 11	17	1038
"Hill's Bone Set Bitters"	L. T. Hill	2,185	Jan. 13	17	62
"Hill's Hepatic Panacea or Liver Medicine, For Diseases of the Liver, Dyspepsia, Constipation, &c."	L. T. Hill	2,184	Jan. 13	17	62
"Hoffman's Popular Injection"	G. W. Hoffman & Co.	2,275	May 11	17	1038
"Home Lucis"	A. Foulds	2,235	Mar. 23	17	630
"Homogeneous Metal"	National Tube Works Company	2,293	June 8	17	1288
"Hoo-Lah"	A. Maurice	2,217	Mar. 2	17	456
"Hubbard's Home Favorite Cough Syrup"	P. W. Hubbard & Co.	2,265	May 4	17	978
"Imported Bertel Hat"	Gore Bros. & Dykman	2,349	Oct. 12	18	793
"Indian Herb Bitters"	C. M. Petrick & Co.	2,196	Feb. 3	17	202
"Infallible Liniment for Man and Beast"	H. Hutaff	2,247	Apr. 13	17	804
"Inwood's Hair Producer"	D. A. Inwood	2,337	Sept. 14	18	575
"Jet Rubbing Varnish"	Murphy & Co.	2,378	Dec. 28	18	1467
"Jones' Liver Granules"	E. L. Jones	2,307	July 13	18	66
"Jos. Gahn's Milwaukee Export Lager Beer"	J. Gahn	2,282	May 18	17	1098
"Kenney's Speedy Relief"	W. F. Kenney	2,255	Apr. 20	17	855
"Kerr's Dandelion and Kidneywort Pills"	Kerr Brothers	2,377	Dec. 28	18	1467
"Knowlton's Prepared Tapioca, for Puddings and Pies"	G. K. Knowlton	2,227	Mar. 9	17	514
"Krafts Compound Petrolia Cough Lozenges"	J. Kraft	2,240	Mar. 30	17	683
"Kropp's Salve Cure for Scalds, Burns, Bruises, Cuts, Piles, etc."	H. Kropp, Jr.	2,301	June 22	17	1405
"Laevensohn's Russian Pulmonic Syrup"	E. M. Newland	2,198	Feb. 10	17	278
"Lippincott's Dyspepsia Tonic"	J. P. Lippincott	2,343	Sept. 28	18	687
"Little Mandrake Pills"	W. D. Reed	2,241	Mar. 30	17	688
"Luminous Relievo Card Signs"	Staples & Salisbury	2,297	June 15	17	1353
"Lydia E. Pinkham's Blood Purifier"	W. H. Pinkham	2,284	May 18	17	1098
"Manufactured by the German Package Dye Co., Watertown, N. Y., (For Package Dyes.)"	Felt & Hotchkiss	2,253	Apr. 20	17	855
"Mattson's Self-Filling Water-Bag for the Neck"	M. Mattson	2,340	Sept. 28	18	687
"Mattson's Self-Filling Water-Bag for the Neck"	M. Mattson	2,344	Sept. 28	18	687
"Meldrum's Deodorizer"	E. A. Hanlen & Co.	2,248	Apr. 13	17	804
"Mexican Blood and Liver Purifier"	R. H. Mitchell	2,318	July 27	18	196
"Miller's Unexcelled Shampooing Preparations for Male and Female."	J. C. Miller	2,237	Mar. 23	17	630
"Milliere's Liquid Powder"	C. C. Williams and A. B. Hall	2,306	July 6	18	2
"Morris' Rheumatic Radical Cure"	D. D. Morris	2,267	May 4	17	978
"Moth Killer," (a Compound for destroying Insects)	B. G. Seebach	2,308	July 13	18	66
"Nature's Best Friend"	A. S. Lockerson	2,266	May 4	17	978
"New York Sanitary Company—Protect The Living, Preserve the Dead." (For a preservative fluid for treating Corpses.)	New York Sanitary Company	2,178	Jan. 6	17	2
"Nichol's Carbolic Dentifrice"	M. S. Nichols	2,186	Jan. 13	17	62
"Niemeier's Emulsion"	Dukehart & Co.	2,281	May 18	17	1098
"Old Fashioned Family Cough Cordial"	J. F. Franklin	2,362	Nov. 2	18	956
"Owen and Chamberlain's Camphorated Hartshorn Liniment."	Chamberlain & Co.	2,360	Nov. 2	18	935
"Owen and Chamberlain's Cough Remedy"	Chamberlain & Co.	2,361	Nov. 2	18	985
"Owl Match"	National Bureau of Engraving and Manufacturing Company.	2,288	June 1	17	1226
"Pabke's Iron Bitters"	A. Pabke	2,335	Aug. 31	18	467
"Page & Rodgers' Patent Water-Proofed Carbolyzed Paper"	Page, Booth & Co.	2,322	Aug. 3	18	246
"Paine's Sewing Machine Oil"	R. J. Paine	2,372	Dec. 14	18	1343
"Paisley Machine Thread, 200 Yds."	National Thread Company	2,188	Jan. 13	17	62
"Paisley Silk and Thread Cos'. Extra Soft Finish"	National Thread Company	2,192	Jan. 20	17	112



## Alphabetical list of labels—Continued.

Title.	Name.	No.	Date.	Official Gazette.	
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"Palmer's Hair Restorer and Tonic".....	C. W. Palmer.....	2,311	July 20	18	134
"Par Excellence Drawing and Tracing Paper".....	E. G. Soltmann.....	2,376	Dec. 21	18	1410
"Parker Bros.' Machine Thread, 200 Yds.".....	National Thread Company.....	2,189	Jan. 13	17	62
"Parker's Celebrated Stomach Bitters".....	J. C. Parker.....	2,300	June 22	17	1405
"Patterson's Peach Stone Liniment".....	Patterson & Tolliver.....	2,289	June 1	17	1226
"Pennsylvania Lawn Mower".....	Lloyd, Supplee & Walton.....	2,215	Feb. 24	17	402
"Pennsylvania Lawn Mower".....	Lloyd, Supplee & Walton.....	2,216	Feb. 24	17	402
"People's Dressing—Edward Henshaw, Sole Agent".....	E. Henshaw.....	2,182	Jan. 13	17	62
"Perry's Cough Syrup".....	F. Cook & Co.....	2,357	Oct. 19	18	861
"P. H. Montague's Diarrhoea Specific".....	P. H. Montague.....	2,323	Aug. 3	18	246
"Potter's Vermicide Paste".....	J. E. Potter.....	2,221	Mar. 2	17	456
"Prepared Daphne Leaf" (For Medicated Plasters).....	G. Hirsemann.....	2,197	Feb. 10	17	278
"Prescription No. 4,000 J. C. Peiper's Rheumatic Cure".....	F. W. Sennewald.....	2,291	June 1	17	1226
"Raleigh Plug, Smoking Tobacco".....	Oliver & Robinson.....	2,369	Dec. 7	18	1280
"Reasons why it is to your interest to buy the Gold Mandarin Tea".....	C. Jevne.....	2,346	Oct. 5	18	737
"Reina Maria Cristine".....	Heppenheimer & Maurer.....	2,245	Apr. 6	17	746
"Regalia De Preferencia Exquisitos Tabacos, Hechos Expressament Para Personas De Gusto Por.".....	J. B. Creagh.....	2,176	Jan. 6	17	2
"Ren Vinum or Kidney Wine".....	H. V. Hoagland.....	2,319	July 27	18	196
"R. H. Dexter's Golden Balsam".....	R. H. Dexter.....	2,329	Aug. 31	18	467
"Rip Van Winkle".....	Schumacher & Ettlinger.....	2,285	May 25	17	1160
"Robertson's Infallible Cure".....	C. H. Strong.....	2,233	Mar. 16	17	574
"Roper's Soap".....	T. E. and W. Roper.....	2,203	Feb. 10	17	278
"Saratoga Geyser Spring Water".....	G. E. Settle and H. F. Cary.....	2,295	June 15	17	1353
"Sansman's Cough Mixture".....	H. B. Taylor.....	2,202	Feb. 10	17	278
"Schlotterbeck's Double or Concentrated Effervescent Solution of Citrate Magnesium".....	A. G. Schlotterbeck.....	2,199	Feb. 10	17	278
"Smith's Cough Syrup".....	E. G. Smith.....	2,333	Sept. 21	18	627
"Smith's Little Cathartic Pellets".....	E. G. Smith.....	2,339	Sept. 21	18	627
"Special Notice to Jewelers, Metal Workers, and others".....	H. D. Goldsmith.....	2,272	May 11	17	1038
"Spring's Positive Cure for Catarrh".....	H. H. Spring.....	2,303	June 29	17	1454
"Staehle's Corn Cure".....	L. C. Staehle.....	2,296	June 15	17	1353
"Steketee's Worm Destroyer".....	G. G. Steketee.....	2,222	Mar. 2	17	456
"Surface Gravity-Locking".....	C. B. Clark Manufacturing Company.....	2,262	May 4	17	978
"Swan's Antibromidrosis".....	J. N. Patton.....	2,211	Feb. 17	17	334
"The A Brand Tomato".....	National Bureau of Engraving and Manufacturing Company.....	2,294	June 15	17	1353
"The Gem Puzzle".....	M. J. Rice.....	2,250	Apr. 13	17	804
"The Great Colic Panacea".....	J. Faust.....	2,375	Dec. 21	18	1410
"The Great Universal Remedy for Corns and Bunions".....	I. F. Walter.....	2,313	July 20	18	134
"The Magic Cure for Chills, Fevers, and all other forms of Malarial Diseases".....	G. Tallcot.....	2,201	Feb. 10	17	278
"The Native Liniment Manufactured from Seneca Oil".....	J. C. Robinson.....	2,302	June 22	17	1405
"The Oriental Hair Gloss".....	F. Rider.....	2,256	Apr. 20	17	855
"The Peoples' Favorite Tonic Bitters".....	P. W. Hubbard & Co.....	2,358	Oct. 26	18	957
"The Tracy Inhalant Catarrh Cure".....	L. B. Woolfolk.....	2,266	May 25	17	1160
"The Victor Baby Food".....	V. E. Monger & Petrie.....	2,231	Mar. 16	17	574
"Topical RepARATION".....	J. R. Talbot.....	2,238	Mar. 23	17	630
"Tropic Fruit Laxative".....	J. E. Hetherington.....	2,226	Mar. 9	17	514
"Trott's English Waterproof Blacking".....	C. H. Trott.....	2,309	July 13	18	66
"Two-Threaded Non-Shrinking Wool Underwear".....	S. Condé.....	2,327	Aug. 24	18	416
"United Cigar Makers League" (for Cigars, Cigarettes, and Tobacco.).....	W. Smith.....	2,351	Oct. 12	18	798
"U. S. P. Compound Cathartic Pills".....	F. D. Ellsworth.....	2,229	Mar. 16	17	574
"Warren's Vegetable Soup Package".....	J. D. Warren.....	2,251	Apr. 13	17	804
"Williams' Hoof Ointment".....	J. R. Williams.....	2,373	Dec. 14	18	1343
"Yellow-Jack Preventive Bitters".....	T. H. W. Upshur.....	2,213	Feb. 17	17	334

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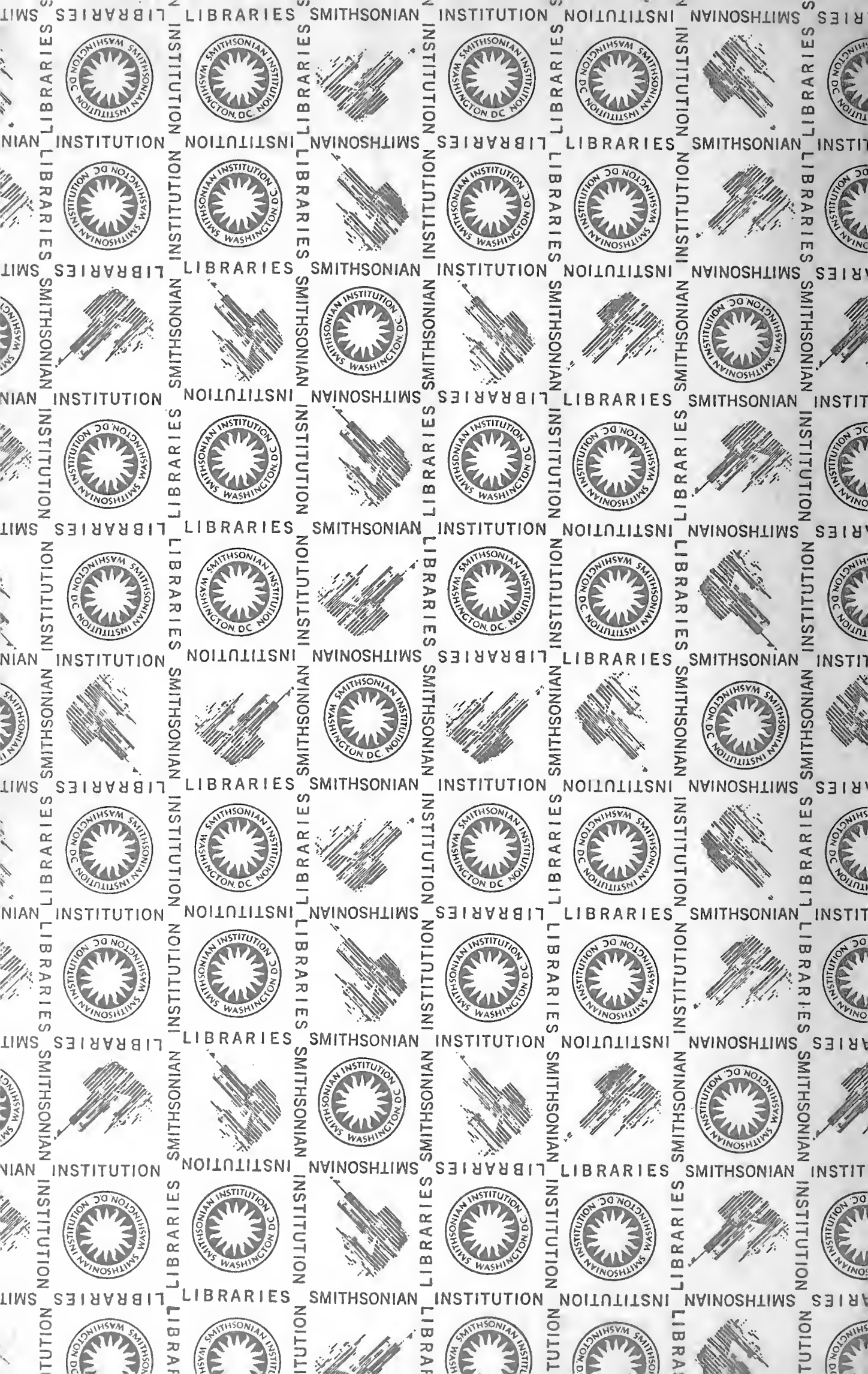
Invention.	Patentee.	No. of patent.	Date of patent.	Disclaimer filed.	Official Gazette.	
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Beer. Fining-shavings for .....	August Lachenmeyer.....	216,868	June 24, 1879	Jan. 24, 1880	17	334
Boots and shoes. Manufacture of.....	Gilbert Hawkes. (Reissue) .....	2,807	Nov. 26, 1867	Aug. 9, 1880	18	362
Carpet-lining .....	John R. Harrington. (Reissue) ..	2,415	Dec. 11, 1866	Nov. 2, 1880	18	1118
Cartridge-shells. Tool for heading.....	George P. Salisbury and Charles S. Wells.	170,772	Dec. 7, 1875	July 22, 1880	18	240
Coffee. Cleaning and polishing.....	William and Samuel Thompson..	111,403	Jan. 31, 1871	Apr. 21, 1880	17	1098
Flour-bolting machine .....	William F. Cochrane. (Reissue) ..	6,595	Jan. 6, 1863	Dec. 31, 1879	17	2
Glass, &c., for etching. Process of preparing..	Carl Frederici .....	154,032	Aug. 11, 1874	Feb. 13, 1880	17	402
Harvesting-machine .....	Rufus Dutton and Alfred Tornquist.	212,303	Feb. 18, 1879	July 17, 1880	18	196
Hats and caps. Sweat-band for .....	Thomas W. Bracher .....	210,489	Dec. 3, 1878	May 12, 1880	17	1160
Hay-rake. Horse .....	Joseph H. Shireman. (Reissue) ..	7,988	Dec. 11, 1877	Dec. 13, 1880	18	1410
Loom-templates. Burr-roll for .....	Joel H. Prouty and Solon S. Sprague.	226,548	Apr. 13, 1880	Apr. 17, 1880	17	912
Meats. Preserving and packing cooked.....	William J. Wilson. (Reissue)...	6,370	Mar. 31, 1874	Oct. 18, 19, 1880	18	1117
Pump for windmills. Self-adjusting .....	Isaac H. Palmer .....	152,407	June 23, 1874	Mar. 18, 1880	17	688
Valves. Self-regulating pressure.....	Augustine Campbell. (Reissue) ..	6,264	Feb. 2, 1875	Aug. 21, 1880	18	523
Wells. Tubular apparatus for doep .....	M. J. Dickerson and Jacob Stuber.	50,919	Nov. 14, 1865	Dec. 29, 1879	17	62
Wrench .....	Lucius Jordan and Leander E. Smith. (Reissue.)	5,294	Feb. 25, 1873	Aug. 9, 1880	18	362

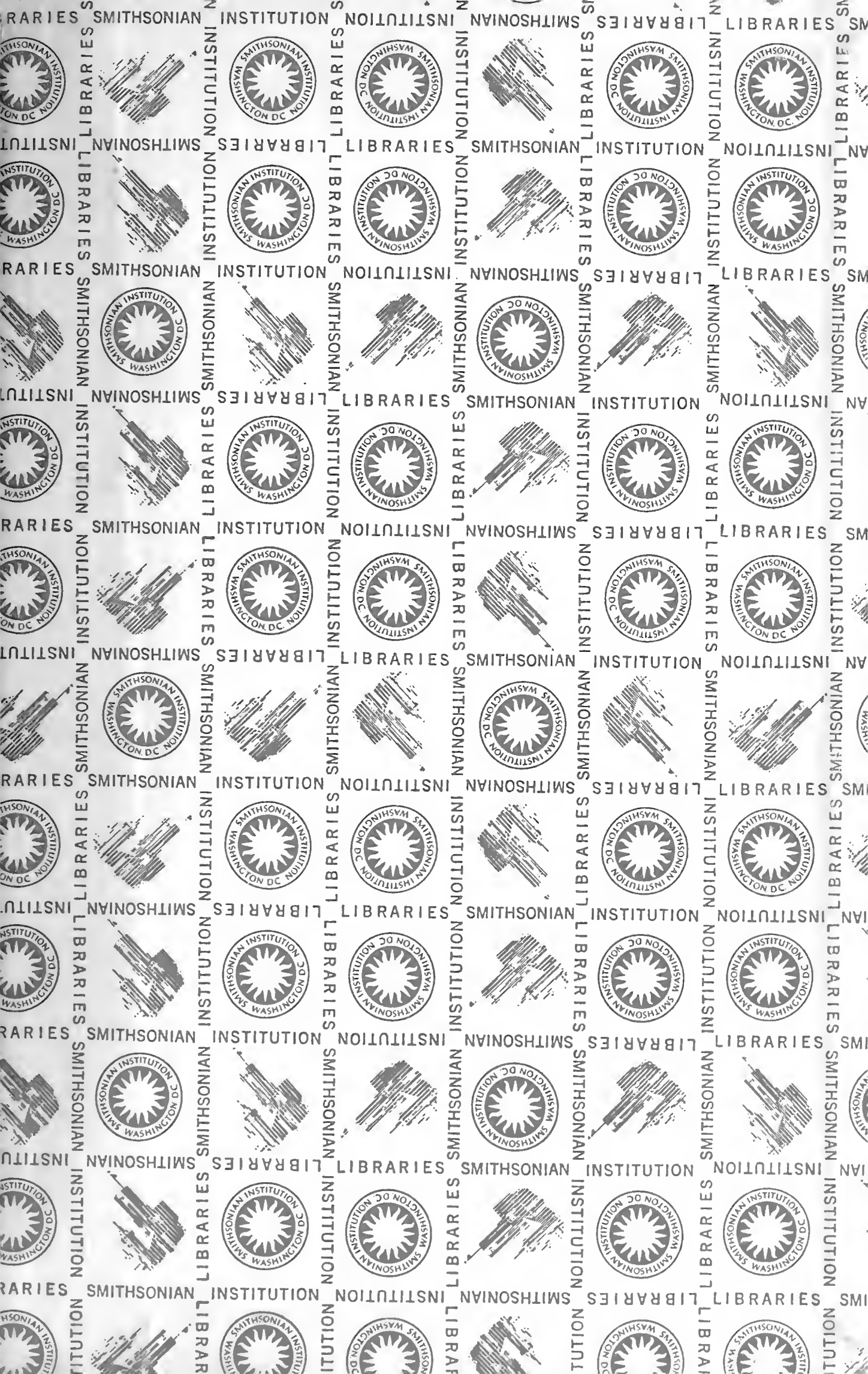












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